The Demographic Transition in the Arab World

The dual role of marriage in family dynamics and population growth

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Introduction

The Arab World belongs to the group of countries in which the demographic transition is in full swing, as both fertility and mortality have declined considerably over the last few decades. At first glance, the Arab World is experiencing the same kind of demographic processes Europe went through in the past, only later and faster. However, a closer investigation of the key variables involved in the transition uncovers some important differences in the mechanisms behind fertility decline. Whereas in Europe the fertility decline (during the first demographic transition) was the result of birth control within marriage, in the Arab world fertility decline is also driven by rising ages at marriage that in turn shortens the reproductive career of women (Rashad 2000; Rashad & Khadr 2002; Fargues 2005).

In Western Europe, the fertility decline went hand in hand with a mimetic desire for marriage, which manifested itself into lower ages at marriage and a declining number of permanent singles (Matthijs 2002). Today, in the Arab world, the opposite is the case, as ages at marriage have risen in such a way that scholars are talking about a marriage revolution (Rashad 2000). However, inclining ages at marriage in the Arab countries are not the result of a diminished desire for marriage (Engelen & Puschmann 2011a). Marriage continues to be one of the main goals in the life of young people in the Arab world, which is illustrated by the fact that marriage has stayed more or less universal in most Arab countries.

In this chapter we will focus on the dual role of nuptiality change. On the one hand, it creates all kind of new opportunities for people living in the region, on the other, it gives rise to new challenges. As marriage postponement accelerates fertility decline, population growth slows down faster. For many reasons, this is likely to lead to different outcomes. First, it creates a demographic momentum, which can boost the economy temporarily through the presence of a large and cheap labor force (Bloom, Canning & Sevilla 2001). Second, the fact that parents rear less children, will lead to more human capital, as parents can spend more time and money on each individual child (Becker 1960). Higher investments in human capital do increase per-capita income and consumption, opening up possibilities for growth (Lee & Mason 2010). Third, fertility decline is likely to result in wealth concentration, as family capital is divided among a smaller number of inheritors. Fourth, as population growth decelerates, a smaller share of public expenditures will be used to give new people access to existing public services, like education, health care, infrastructure and transportation. This makes it possible to improve the quality of these services and to alleviate poverty more efficiently (Kent & Haub 2005).

Simultaneously, the damaging effects of population growth to the environment will decrease. The region has been suffering in the previous decades from food shortages and a decline in water-availability per capita, leading to water-scarcity and desertification (Al-Weshah 2002). This has led to political tensions and conflicts, and has been a driving force behind massive rural-to-urban migration and high-speed urbanization, with all its negative

consequences including high unemployment rates, growing inequality, social unrest, and the rise of shantytowns (Knerr 2004; Nedoroscik 1997; Puschmann 2011). Decelerated population growth will help governments and urban planners tackle these challenges. Last but not least, postponement of marriage and fertility decline can be beneficial for women. The fact that ages at marriage have risen faster among females than among males, has reduced the age gap between husbands and wives. This trend is likely to increase the bargaining power of married women. Moreover, because married life starts later and women dedicate less of their life-time to reproduction, women's possibilities of performing paid labor and activities outside the household are growing (Engelen & Puschmann 2011a).

Nuptiality and fertility decline also create new challenges. As a result of high-speed fertility decline, the population of the Arab world is ageing at an increasingly faster pace. As a result, a growing number of people will have to rely on care from shrinking proportions of working-age people. It will be necessary to take measures, otherwise the pension system will break down, the health care system will fail, and long-term economic development will be undermined. Without governmental intervention the burden of an ageing population will be passed on to the family. Accordingly, elderly who have no relatives will especially suffer, as they will not be able to count on care and assistance from family members. Ageing might have especially severe consequences for women because it is likely that they will have to act as prime caretakers for the elderly in their family. This would mean that the burden of feeding and rearing a great number of children will be replaced by the care for an even larger number of older relatives.

Nuptiality change also creates tensions within families, especially because young people in the Arab world still prefer to marry (young), but can do so only at more advanced ages (Bakass & Ferrand 2013). Since marriage is postponed, young men and women keep on living, for an extended period of time, with their parents and remain under their authority. This is not self-evident for several reasons. First, the children are better educated than their parents, but still have to obey them at an advanced age. Second, parents continue to control the sexuality of their unmarried daughters, as pre-marital sex is still taboo (especially for women) and might lead to family shame (Saadawi 2007). This limits the day-to-day life of unmarried females. Third, a main transfer of wealth between parents and children is delayed, because children are expected to contribute to the budget of the family of orientation, limiting their own opportunities to save for their future family (Booth 2007).

These frustrations within the household seem to have started to merge with dissatisfaction about the political situation, culminating in the so-called Arab Spring. Contrary to scholars trying to explain the late revolutions in the Arab countries mainly in terms of a youth bulge (Cincotta 2012; Cincotta this volume), we argue that the Arab spring is closely related to the marriage revolution. The youngest generation in the Arab world has invested more time and money in education, which has heightened their expectations about their future. However, their opportunities in life have not increased accordingly. Conversely, they

face relative deprivation: compared to the less-educated generation of parents and grandparents, young people today have a harder time reaching their goals in life, including marriage and family formation. These young unmarried people, who lack the privileges related to married life – sexual intercourse, independence, authority, social status – make the government responsible for their situation, as it has failed to provide them with acceptable economic opportunities. At the same time, the fact that they are unmarried makes them more willing to participate in revolts against undemocratic and corrupt regimes (Marks 2011a; 2011b).

This chapter starts with an introduction to demographic transition theory. In this section, the key concepts related to the first and second demographic transition are reviewed, and some critics are discussed. Next, we describe the core processes of the first demographic transition in the Arab World. Subsequently, we will have a look at the characteristics and the causes of marriage change, as the Arab 'marriage revolution' greatly influences fertility decline (Rashad & Khadr 2002). Next to persistent below-replacement fertility, rising ages at first marriage, increasing divorce rates, growing rates of cohabitation, and increasing numbers of births out of wedlock, are main characteristics of the second demographic transition (Van de Kaa 2002; Lesthaeghe 2010). We will evaluate if marriage change in the Arab World actually can be put under the header of such a concept. Subsequently, we will deal with the consequences of marriage change. First, we will have a look at the (potential) positive effects of declining population growth rates, i.e. a restoration of the balance between population size and resources, and women's empowerment. Second, we consider side-effects such as ageing and rising tensions within families and society at large. Finally, we will show that marriage change is one of the drivers of the Arab Spring.

Before we start our inquiry, it is important to define the region under study and to describe it from a geo-political perspective. We define the Arab world as the countries which are member states of the Arab League, apart from Comoros because of its specific geographic location (in the Indian Ocean, north of Madagascar). Thereby, we include the following twenty-one countries: Morocco, Mauritania, Algeria, Tunisia, Libya, Egypt, Sudan, Syria, Lebanon, Iraq, Palestine, Kuwait, Saudi Arabia, Qatar, Jordan, Bahrain, United Arab Emirates, Oman, Yemen, Djibouti and Somalia. These countries can be grouped into four main regions: The Maghreb, the Mashreq, the Gulf and the peripheral countries in the south

In all above-mentioned countries, Arabic is an official language and Islam is the most practiced religion. At first sight the Arab world is relatively homogeneous. This is only partially true as this area is home to several ethnic and religious minorities, like Shiites, Christian Copts, Jews, Blacks, Berbers, Kurds, etc. Economically speaking, the region is diverse, as it contains some of the richest (Qatar and United Arab Emirates) and some of the poorest countries (Djibouti, Yemen, Mauritania, Sudan and Somalia) in the world. These differences in development among neighboring Arab countries are to a large degree explainable on the basis of the availability of oil reserves, internal political (in)stability,

involvement in the Arab-Israel conflict, the degree to which macro-economic reforms (mainly economic liberalization) have been implemented, and differences in fertility (Winckler 2005: 1-5). Within the Arab countries, differences in living standards among the poor and rich are huge, as in most states social security systems are absent or defect, and only a small minority of the population takes advantages of the country's natural resources.

Region	Country
Maghreb	Algeria
	Libya
	Morocco
	Tunisia
Gulf	Bahrain
	Kuwait
	Oman
	Qatar
	Saudi Arabia
	United Arab Emirates
Mashreq	Egypt
	Iraq
	Jordan
	Lebanon
	Palestine
	Syria
Periphery	Djibouti
	Mauritania
	Sudan
	Somalia
	Yemen

1 Demographic transition theory

The first demographic transition

The concept of the demographic transition is usually credited to the American demographer Frank Notestein. In his 1945 article *Population: the long view*, he formulated a three-stage model of population change, which has become one of the most fruitful generalizations in the field of social sciences (Kirk 1996). According to that three-stage model (graph 1), every country in the world, sooner or later, experiences a shift from high to low death and birth rates. The initiation of the demographic transition is a clear break from the past, as mortality decline starts without any structural change in fertility, opening up the way to high population growth. Like existed before the transition, many babies are born, but now many of them reach

maturity, leading to a constant rise in life expectancy. In a second phase, fertility starts to decline and as a result population gradually begins to slow down. In the third and final stage, a new equilibrium established as both birth and death rates settle at the same low level. Population growth is slow again, but a young population has been replaced by an older, ageing population.

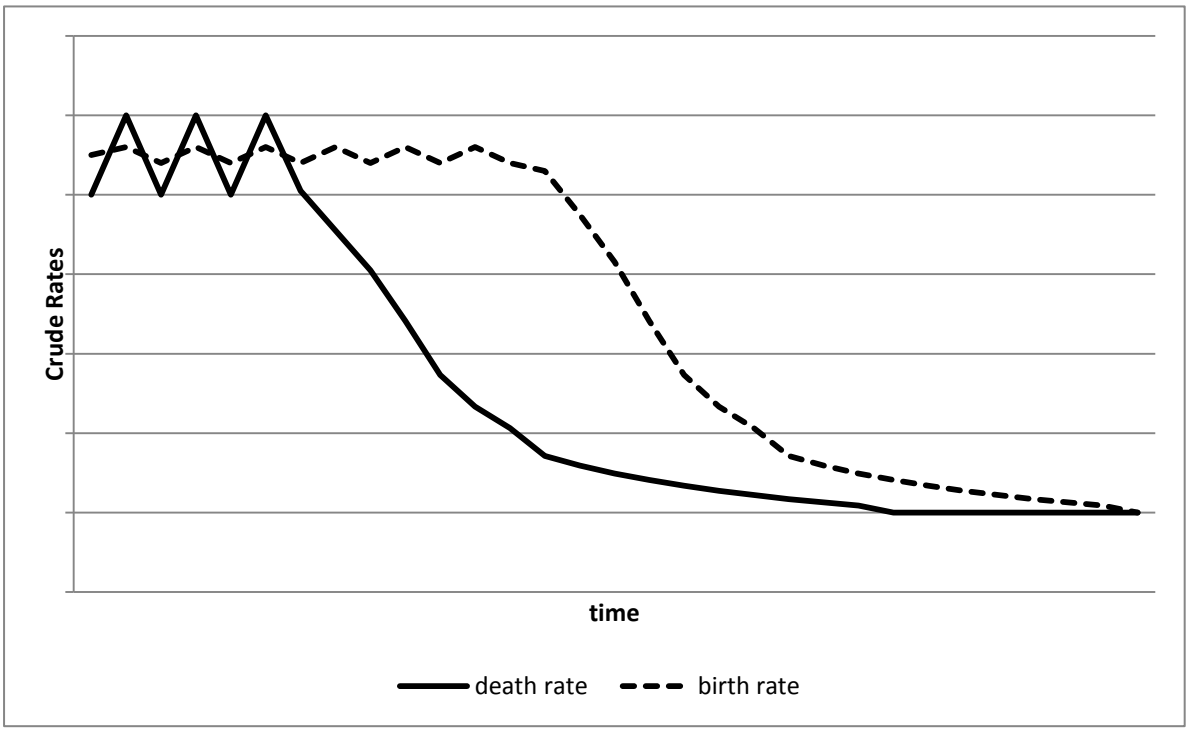
Today, the world can be divided roughly into countries which have completed the first demographic transition (e.g. Europe and North America), countries in which the shift is in full swing (e.g. North Africa and the Middle East) and countries which only more recently experienced some decline in mortality and fertility (most notably Sub-Saharan Africa). The Western countries were the first to experience the transition and the first to complete it. In Europe a structural decline in mortality started around the middle of the eighteenth century, thanks to better hygiene and improved infrastructure. During the nineteenth century, mortality continued to decline due to the introduction of vaccination programs, improved food production, the reorganization of urban areas (e.g. construction of water pipes and sewers) and the improvement of working and living conditions (Livi-Bacci 2012). During the twentieth century mortality rates further declined and life-expectancy rose higher and higher, but the rate of change became slower.

From about the middle of the nineteenth century on, mortality decline was followed by fertility decline. Married couples in the Western world started to reduce the number of births within marriage by way of withdrawal and rhythm (Lesthaeghe 2010). Fertility decline was largely a result of parent's reaction to the fact that less children died premature (Lee 2003). Simultaneously, economic motivations also drove this shift in reproductive behavior. In the course of the nineteenth century it became financially more attractive to have less children, as they started to contribute less to the family budget (e.g. prohibition of child labor), while their education became more expensive, mainly as a result of the introduction of compulsory school attendance (Caldwell 1976, 1981; Kirk 1996). While economic change seems to have fostered a motivation to reduce fertility, religion and culture acted as a barrier, temporarily preventing some people in some regions to reduce fertility at a time when this had become economically rewarding (Lesthaeghe & Wilson 1986; Engelen 1998). The Catholic church, for example, did everything to prevent their members from applying any form of birth control (Schoonheim 2005; Schoonheim & Hülsken 2011). More recently, scholars have pointed out the role of diffusion mechanism, depending on social networks and the family with regard to the spread of birth control techniques (Bras 2014; Szreter 1996; Van Bavel 2004).

Although the first demographic transition model has generally turned out to be a good description of the development of fertility and mortality, important deviations from the model have been observed as well. In France, for example, fertility decline preceded mortality decline. Next, the post-war baby boom caused in several Western and non-Western countries, an unexpected upheaval in fertility, which was not anticipated in Notestein's model (Van Bavel & Reher 2013). However, the largest deviation from the model is probably illustrated

by the baby-bust of the late 1960s, which paved the way to sub-replacement fertility. That is the moment where according to Ron Lesthaeghe and Dirk van de Kaa (1986), a second demographic transition started.

Graph 1: The first demographic transition model



The second demographic transition

Ron Lesthaeghe and Dirk van de Kaa (1986) pointed out that the second demographic transition started in North-Western Europe, and from there will spread gradually to other parts of the globe. The main characteristics of this transition are continued sub-replacement fertility, rising numbers of childlessness couples, drops in marriage and remarriage rates, and rising celibacy, cohabitation, divorce and extra-marital fertility. Lesthaeghe and Van de Kaa link those demographic trends and contrast them to the main characteristics of the first demographic transition. Whereas declining fertility during the first transition is perceived as an altruistic decision of parents to make sure that every child would fare better by reducing resource dilution, below-replacement fertility is described as the outcome of individual choices (Van de Kaa 1987). The 'king-child era' has been replaced by a 'king-couple' (Ariès 1980; Van de Kaa 2004). Not only has the motivation behind fertility decline shifted, also the means to achieve it. Whereas birth control during the first transition was mainly practiced by withdrawal and rhythm, more reliable ways of family planning (the pill and the IUD) have become common practices during the second transition (Lesthaeghe 2010). As contraception became more reliable, the ties between sex and reproduction became weaker (Zwaan 1993).

In terms of nuptiality the second demographic transition is also a strong turning point. During the first transition men and women married more often and younger, during the second demographic transition, marriage was increasingly delayed, and more and more people never married. Moreover divorce, which had been a rarity during the first transition, became a common occurrence during the second transition, on the principle that 'a good divorce is better than a bad marriage' (Lesthaeghe 2010: 212). Simultaneously, cohabitation became increasingly popular, first as a prelude to marriage, then as a substitute and finally as a postlude of matrimony. The next step was to disentangle the link between marriage and reproduction. From the 1980s on, a large increase in the numbers of births out of wedlock was observed in many North-Western European countries, illustrating that for many young people marriage had become completely obsolete (Zwaan 1993).

Deep societal and ideational changes are supposed to drive the second demographic transition. Lesthaeghe and Van de Kaa (1986) mention the shift from a society based on solidarity, in which the family functioned as a linchpin towards a society in which individual autonomy and self-fulfillment are the new devices. This shift embraces profound changes in gender-roles, a de-standardization of the life course (Elzinga & Liefbroer 2007), and a waning influence of traditional powers, like the state and the church

The second demographic transition theory has not remained uncontested. Scholars have argued that there is only one transition and that the post-1965 developments are a continuation of the first transition or a special feature of it (Cliquet 1992; Coleman 2004). Next, sub-replacement fertility, one of the main features of the second demographic transition, already existed in the inter-war period (Van Bavel 2010). This raises doubts about the onset of the second transition. Moreover, as there is no clear endpoint, the concept of transition might actually not apply. After all, there is no clear shift from one equilibrium to another (Sobotka 2006). Next, ideational changes may not have been the drivers behind changes in fertility and nuptiality. For Belgium, Neels and De Wachter (2010) made assumable that post-1970 changes in union formation and fertility are instead related to structural changes in society than to value changes towards reproduction. Last but not least, it has been questioned whether the second demographic transition will actually spread from North-Western Europe to other parts of Europe and even to other continents (Liefbroer & Fokkema 2008).

2 The demographic transition in the Arab world

Mortality decline

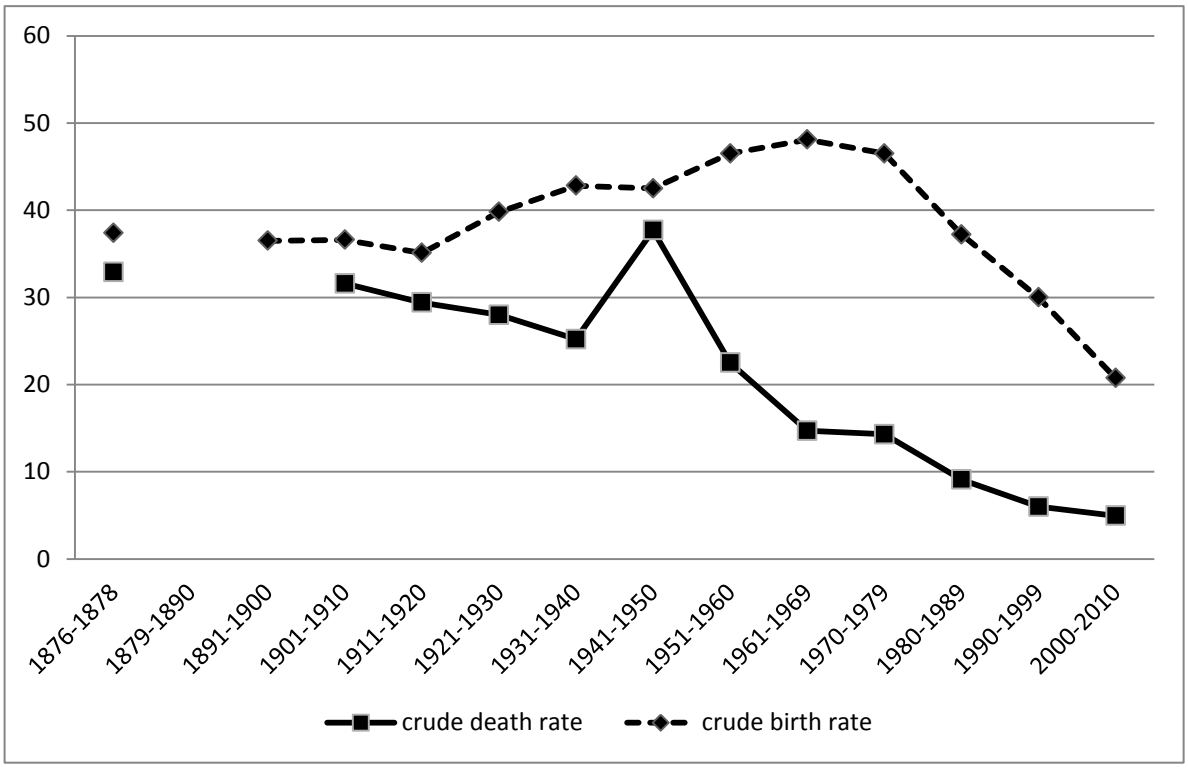
It was not before the era of European colonial rule (roughly the latter half of the nineteenth till the middle of the twentieth century) that a structural decline in mortality took place (Tabutin & Schoumaker 2005: 515).[1] The colonial powers, notably the French and English,[2] introduced

[1] In Algeria colonization started already in 1830.

all kind of measures to improve the health and life-expectancy. Among those measures were improvements in hygiene (notably sanitation programs in urban areas), the introduction of vaccination programs, increased use of antibiotics, and the establishment of health care services. However, only by the middle of the twentieth century, major epidemic diseases like cholera, typhus and malaria had disappeared (Tabutin & Schoumaker 2005: 515)

After independence, improvements in health services have decreased mortality further. There are, however, big differences in the level and development between and within countries. This has to do with differences in living standards, economic growth, and the density and quality of health services. In the oil-producing countries of the Gulf, economic growth and increasing living standards went hand in hand, and in many of these countries medical treatment in health services is for free (Al-Qudsi 2010). As a result, life-expectancy rose and inequalities in health between socio-economic classes are relatively small. Elsewhere in the Arab world, differences in health reflect social inequalities, as the poorest part of the population lives not only under worse conditions, but also suffers from limited access to health care (Akl et al. 2007; Al-Qudsi 2010).

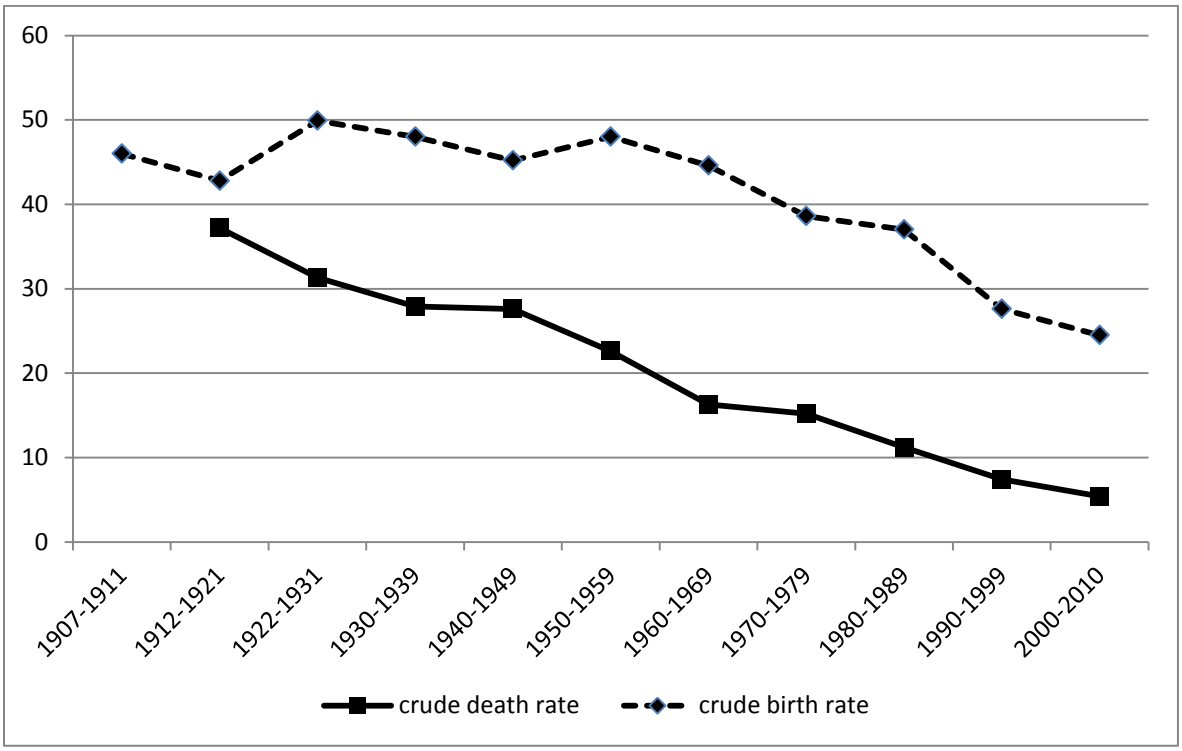
Graph 2: The demographic transition in Algeria, 1876-2010



Source: Tabutin, Vilquin & Biraben (2002) p.13; United Nations World Population Prospects: The 2010 Revision.

[2] The Italians in Libya.

Graph 3: The demographic transition in Egypt, 1907-2010

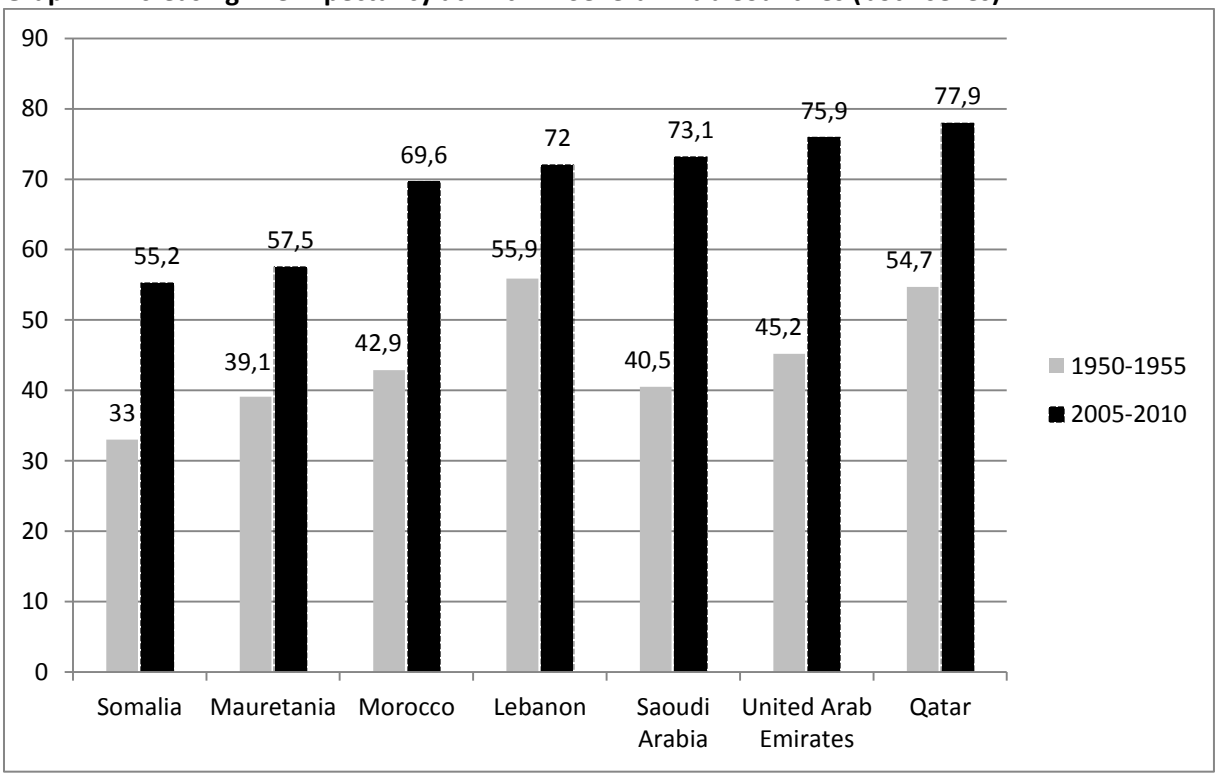


Source: Tabutin, Vilquin & Biraben (2002) p.13 ; United Nations World Population Prospects: The 2010 Revision.

Due to the absence of reliable statistics for most countries in the Arab region, it is hard to describe the decline of mortality before the middle of the twentieth century. Egypt and Algeria are two exceptions, as these countries disposed already during the first decades of twentieth century of a reliable vital registration system. In Algeria, a slow but structural decline of mortality occurred during the first four decades of the twentieth century. Before and during the struggle for independence (1940s and 1950s) mortality rose steadily. However, from the 1960s on, mortality started to decline again, this time at a faster speed. In Egypt, a structural decline in mortality started in the 1920s, an interruption occurred in the 1940s, and mortality decline continued in the latter half of the twentieth century.

Around the middle of the twentieth century, large differences in mortality existed among the Arab countries. In countries like Kuwait, Qatar and Lebanon crude death rates were relatively low (12‰ to 15‰), while Somalia (32‰) and Yemen (29‰) had high rates. In other Arab countries, death rates fluctuated between 20‰ and 25‰. During the latter part of the twentieth and the first decades of the twenty-first century, mortality decline continued in all countries. As a result, in the period 2005-2010, most countries had a crude death rate below 7‰, except for Somalia (15‰), Mauretania (10‰), and Sudan (9‰). The lowest rates are observed in the Gulf States, especially the United Arab Emirates (1‰), Qatar (2‰) and Bahrain (3‰).

Graph 4: Increasing Life Expectancy at Birth in Several Arab Countries (both sexes)



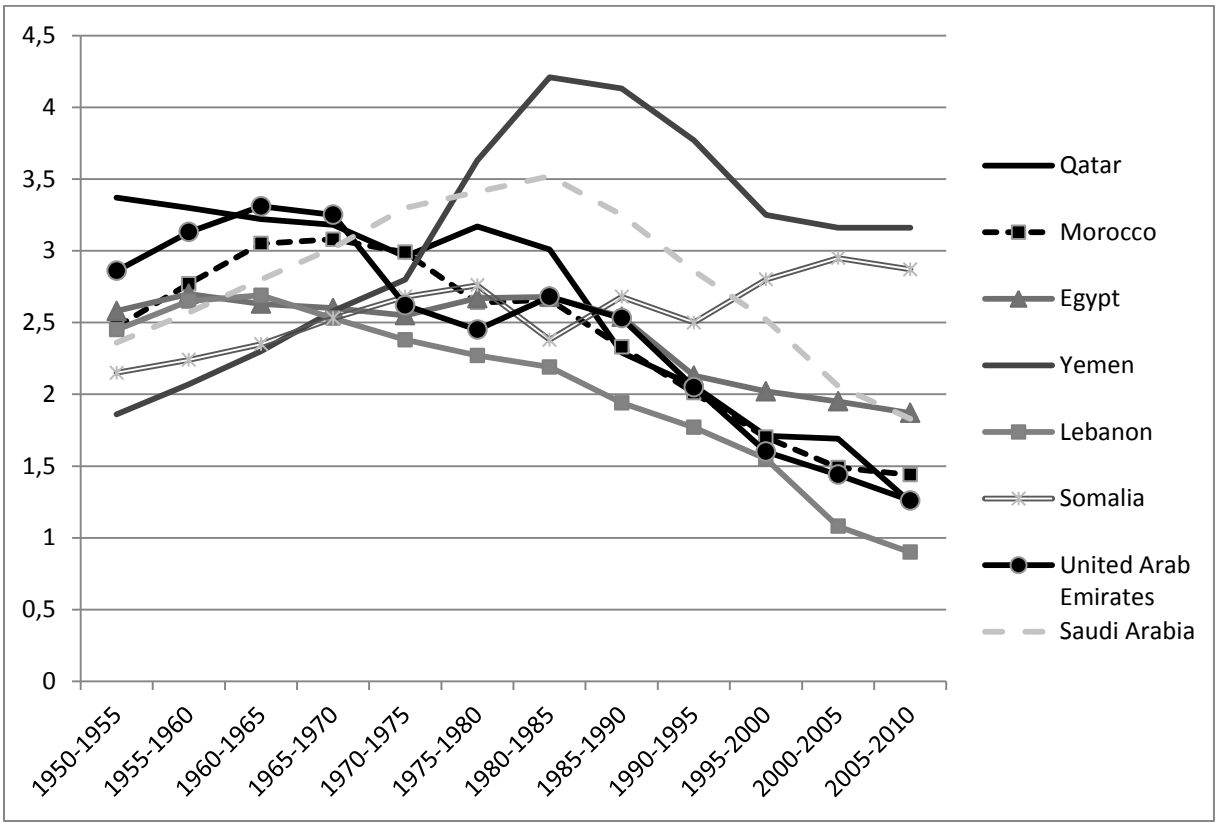
Source: United Nations World Population Prospects: The 2010 Revision

Declining mortality, especially among infants and children, results in considerable increases in life expectancy at birth (Tabutin & Schoumaker 2005: 594). All countries in the region made progress, but there are differences. In the Gulf countries, life expectancy is close to Western European levels. Countries like Somalia and Mauretania, lag behind. In Somalia e.g., life expectancy at birth (both sexes combined) has risen from 33,2 to 55,2 years in the period 1950-2010. In the same period, life expectancy in Qatar increased from 54,7 to 77,9 years. In both countries some 22 years were added to the life-expectancy at birth, but there are still differences, mainly as a result of differences in living standards, economic development, educational attainment, and quality, availability and access of health care.

Population growth

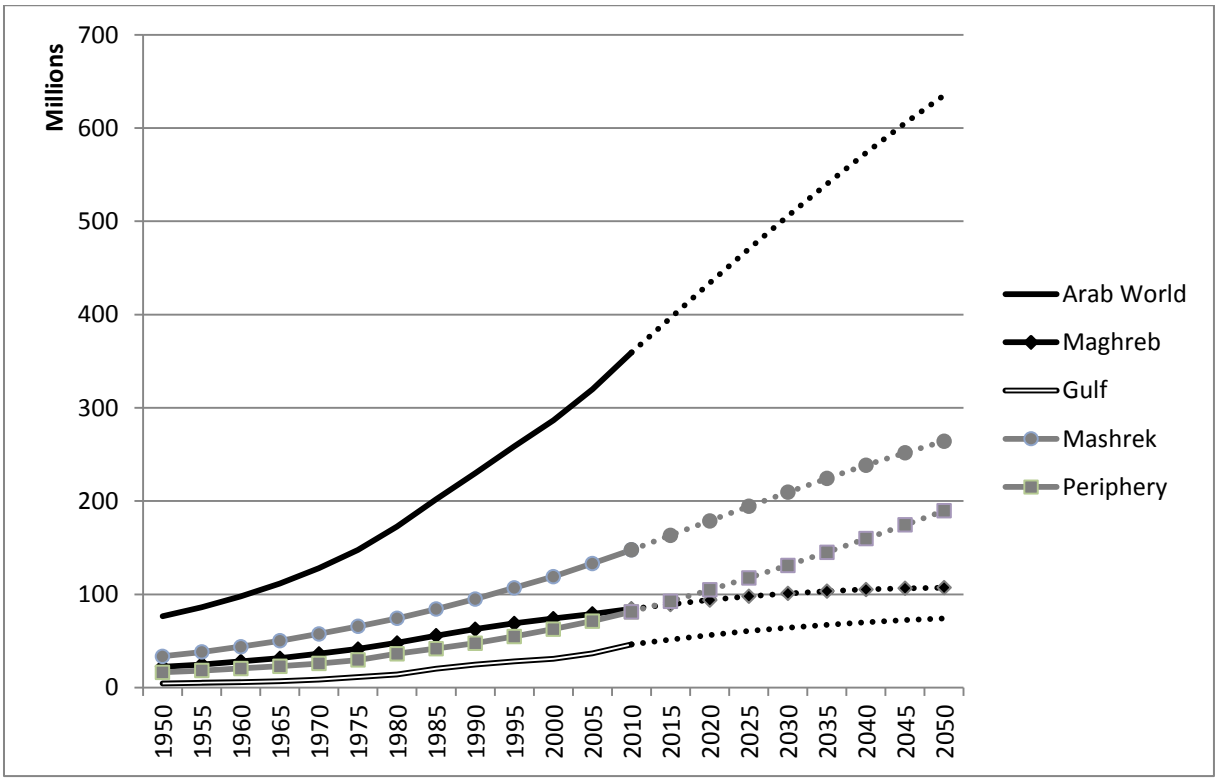
Like Europe in the past, the Arab world experiences a population explosion today. Population growth in the Arab world is, however, considerably larger. North Africa and the Middle East turned into the second fastest growing world region after Sub-Saharan Africa (Dhonte, Bhattacharya & Yousef 2000; Roudi-Fahimi & Mederios Kent 2007). The population of the Arab World grew from about 76 million inhabitants in 1950 to 359 million in 2010 (graph 6). This growth is almost completely the result of natural population growth.

Graph 5: Natural increase (%) in Arab countries, 1950-2010



Source: United Nations World Population Prospects: The 2010 Revision

Graph 6: Estimated total population of Arab world and sub-regions, 1950-2050*



* Projections 2010-2050 (Medium Variant)

Source: United Nations World Population Prospects: The 2010 Revision

Thanks to declining fertility, rates of natural increase are slowing down in the Arab World (graph 5). In countries like Qatar, Saudi Arabia, Morocco and Lebanon, the decrease is pronounced. In most Arab countries the natural increase rate is now below 1,5%. In Lebanon it is even below 1%. However, in Egypt, with a population of more than 81 million inhabitants (the most populous country in the Arab world), the natural increase rate declined only from 2,68% (1985-1990) to 1,87% (2005-2010). Djibouti has a high natural increase rate of 1,89%, but for the other peripheral Southern Arab States the figures are considerably higher: Mauritania 2,47%, Sudan 2,44%, Somalia 2,87%, Yemen 3,16%. Natural increase will stay higher in the peripheral states than in the rest of the Arab world during the next decades as fertility decline has only recently took off in these countries.

Table 2: Net-migration rates in Arab countries, 1960-1965/2005-2010

		1960-1965	2005-2010
Maghreb	Morocco	-3,3	-3,6
	Algeria	-11,2	-0,9
	Tunisia	-10,1	-0,4
	Lybia	6,2	-0,7
Mashreq	Egypt	-0,3	-0,9
	Jordan	7,1	7
	Syria	-0,6	-0,6
	Lebanon	1,9	-0,6
	Palestine	-13,7	-4,7
	Iraq	0	-1
Gulf	Kuwait	82,1	22,2
	Saudia Arabia	5,7	8,2
	Qatar	54,4	132,9
	United Arab Emirates	62,5	106,3
	Oman	-3,4	11,7
Periphery	Mauritania	-0,4	0,6
	Sudan	-1	0,7
	Djibouti	35,7	0
	Somalia	-0,1	-6,8
	Yemen	-3,7	-1,2

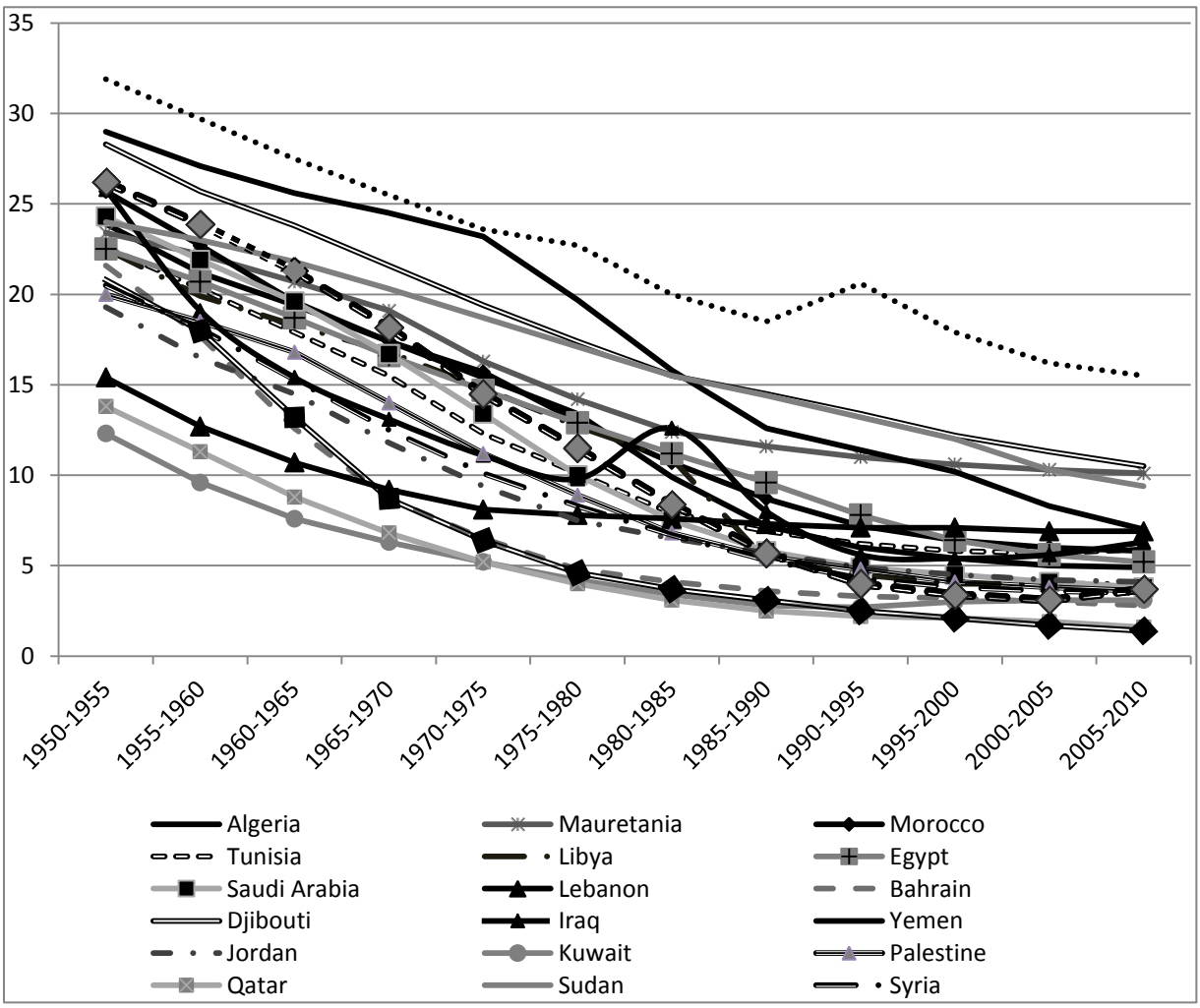
Source: United Nations, World Population Prospects

Although for the Arab world as a whole, natural population growth is close to total population growth, this is not the case for the sub-regions. This has to do with differences in net-migration. While the Maghreb and Mashreq-countries, apart from Jordan, are considered sending areas, the Gulf states are marked net-receivers. As a result, in Morocco, Algeria, Tunisia, Libya, Egypt, Syria, Lebanon, Palestine and Iraq, total population growth is tempered

by migration, while in Jordan, Kuwait, Oman, Saudi Arabia, Qatar and the United Arab Emirates total population growth is strongly reinforced by immigration.

Notwithstanding the fact that fertility levels and natural rates of increase are declining in most countries, the demographic explosion in the Arab World has not yet come to an end. According to the projections of the United Nations (medium variant), the population of the Arab World will grow to 400 million inhabitants by 2015, 500 million by 2030 and 600 million by 2045. The peripheral countries in the Southern Arab World and the Mashreq countries will have the highest growth rates. Lowest growth rates are found in the Maghreb countries, where the combination of considerable emigration and low fertility rates will lead to moderate population growth.

Graph 7: Mortality decline in Arab countries, 1950-2010 (crude death rates)



Fertility decline

It was only during the period of independence that fertility started to decline in the Arab World. Towards the middle of the twentieth century, differences in fertility among the countries were small. The total fertility rate fluctuated around 7; the only exception was

Lebanon, with a total fertility rate of 5,7 in 1950 (estimations United Nations). Compared to other developing countries, fertility was high in the Arab countries, as ages at marriage were low, marriage almost universal, and child-bearing highly valued (Casterline 2009: 5). Pre-transitional fertility rates in the Arab countries were the highest in the world (Rashad 2000).

Since most Arab societies around the middle of the twentieth century had no social security system, the family played a central role in social life. Care for the sick, elderly, disabled and economically deprived persons was a family affair. This explains why marriage was early and almost universal, and why fertility was high, far into the twentieth century (Roudi-Fahimi & Kent 2007: 8). Moreover, Muslim culture encourages marriage and family formation, as those events are believed to strengthen the individual, the family and the *Ummah*, i.e. the world's Muslim community (Bowen 1981: 19; Omran 1992).

Until 1965 no structural decline in fertility is observed in the Arab countries, apart from Lebanon. However, towards the end of the 1960s, the fertility transition initiated in Bahrain, Egypt, Morocco and Tunisia. Djibouti, Iraq, Jordan, Kuwait, Palestine, Qatar and the United Arab Emirates followed in the period 1970-1975. A late start of fertility decline occurred in Algeria, Libya, Oman, Saudi Arabia, Sudan and Yemen.

There are considerable differences regarding pace of decline. Pioneering countries, like Egypt, experience a slower decline than latecomers, like Algeria & Oman. This is not true for Sudan and Mauretania, where fertility decline started late, but the pace of decline was slow. Extremely slow fertility decline is observed in Mauretania and Somalia. Remarkable drops are observed for Algeria, Oman and the United Arab Emirates.

As a consequence of differences in the start and pace of the decline, the disparity in fertility levels has increased over time. Today, there are Arab countries where the total fertility rate is still above 5, like in Yemen and Somalia. On the other hand, in countries like Algeria, Lebanon, Tunisia and the United Arab Emirates, fertility is below replacement level.

Apart from differences in fertility between countries, there are differences between regions within countries, and between rural and urban areas. Generally speaking, fertility is lower in urban areas than in the countryside. There seems to be a link between the level of urbanization and the level of fertility. Likewise, fertility is linked to literacy rates, per capita GDP, contraceptive prevalence and (infant) mortality levels (Eberstadt & Shah 2011: 19).

Like mortality decline, fertility decline initiated later in the Arab world than in Western society, but evolved at a faster speed, since more effective techniques to control/decrease fertility were available. Moreover, rapid decline in fertility was facilitated by the fact that Islam provided less cultural and religious resistance against birth control. Compared to the Christian Church, and especially the Roman Catholic Church, the modern *Ulama* – the educated class of Muslim legal scholars – perceived family planning usually as a practice that was not against the will of God. Most Muslim legal scholars have reasoned that the Quran does not forbid couples to space and to limit the number of births. Moreover, they reason that family planning is not against Islam as coitus interruptus (*azl*) was already

practiced at the time the prophet Mohammed lived; he knew about it and did not forbid it. Consequently, most of the *Ulama* have agreed that family planning is allowed if both the husband and the wife agree, and the sexual pleasure of the wife is not denied (Roudi-Fahimi 2004). As a result of this rather liberal point of view, there has been only minor religious opposition against the establishment of family planning programs in most Arab countries. Some religious leaders, like the Egyptian theologian and jurist Mahmut Shaltut even strongly supported these programs (Bowen 1981: 169).[3]

There is however, a more important reason why fertility declined fast in the Arab World. Whereas in Europe, fertility decline was accompanied by a decrease in average ages at first marriage and proportions of lifetime singles, fertility decline in the Arab world was coupled with a systematic incline in the age at first marriage, and the proportions of lifetime singles stayed roughly similar to prior levels (Engelen & Puschmann 2011a). Rashad and Khadr (2002) have shown that marriage decline in the Arab countries has played a larger role in fertility decline than family planning. In Algeria, fertility decline between 1977 and 1992 was more or less completely a result of marriage change. In Morocco a 3,59-decline in total fertility rate occurred between 1961/1963 and 1995; 65% of this change was due to changes in marital status and 35% was due to changes in marital fertility. In Tunisia, rising ages at marriage account for about two thirds of the decline in total fertility between 1966 and 1988. In Jordan, 81% of changes in fertility in the period 1961-1990 was the result of rising ages at marriage (Rashad & Khadr 2002: 42).

Within the Arab World, high fertility and total population growth rates have been perceived as major challenges to development. In countries like Tunisia, Morocco and Egypt, fast population growth was quickly perceived as a threat. As a result, national family planning programs were established in the 1960s and 1970s. Countries in the Mashreq region saw a less urge to temper population growth. Until the middle of the 1970s the Syrian government, for example, still stimulated population growth by giving premiums to large families and forbidding contraception and its promotion. Things changed, however, as the 1970 census made clear that fast population growth had caused unemployment and that many extra governmental expenditures were needed to provide the population with food, education and health care. Towards the end of the 1970s and the early 1980s the attitude of the Syrian government changed, as it turned into an advocate of family planning (Winckler 1998: 457).

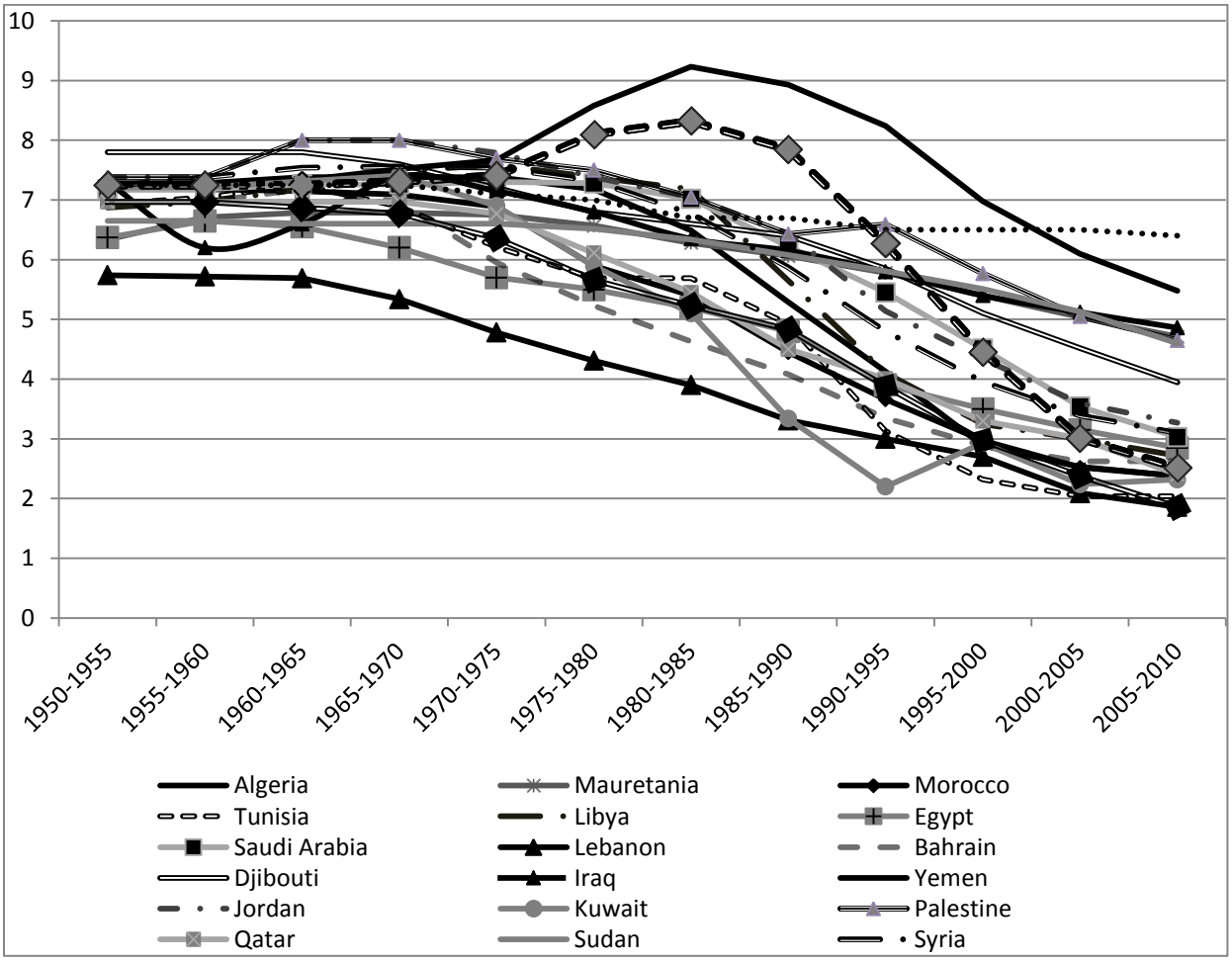
The Gulf countries have longer kept on following a pro-natalist policy, as these countries were obviously in want of a larger labor force, which is also indicated by their large immigration ratios. However, in the 1990s, Qatar and Kuwait started to make family planning services available, and Saudi Arabia moved away from a restrictive point of view towards an

[3] Most of the religious opposition has been on the local level, as less educated Muslim leaders oftentimes thought that birth control intervened with Gods will and was thus *haram* (forbidden by god). Moreover, some religious leaders have reasoned that limited population growth would weaken the Ummah (the larger Muslim community). Political opposition against birth control has been widespread in the Arab countries at times when family planning programs were introduced (Bowen 1981; Winckler 1998)

indirect support (Population Division 2003:23). Contraceptive use in the Gulf is lower than in the rest of the Arab World except for the Southern Arab States, where only recently family planning programs have been adopted.

Thanks to marriage decline, fertility started to decrease in most of the Arab countries years before governments realized that there was a real problem and started to implement family planning programs.

Graph 8: Fertility decline in Arab countries, 1950-2010 (TFR)

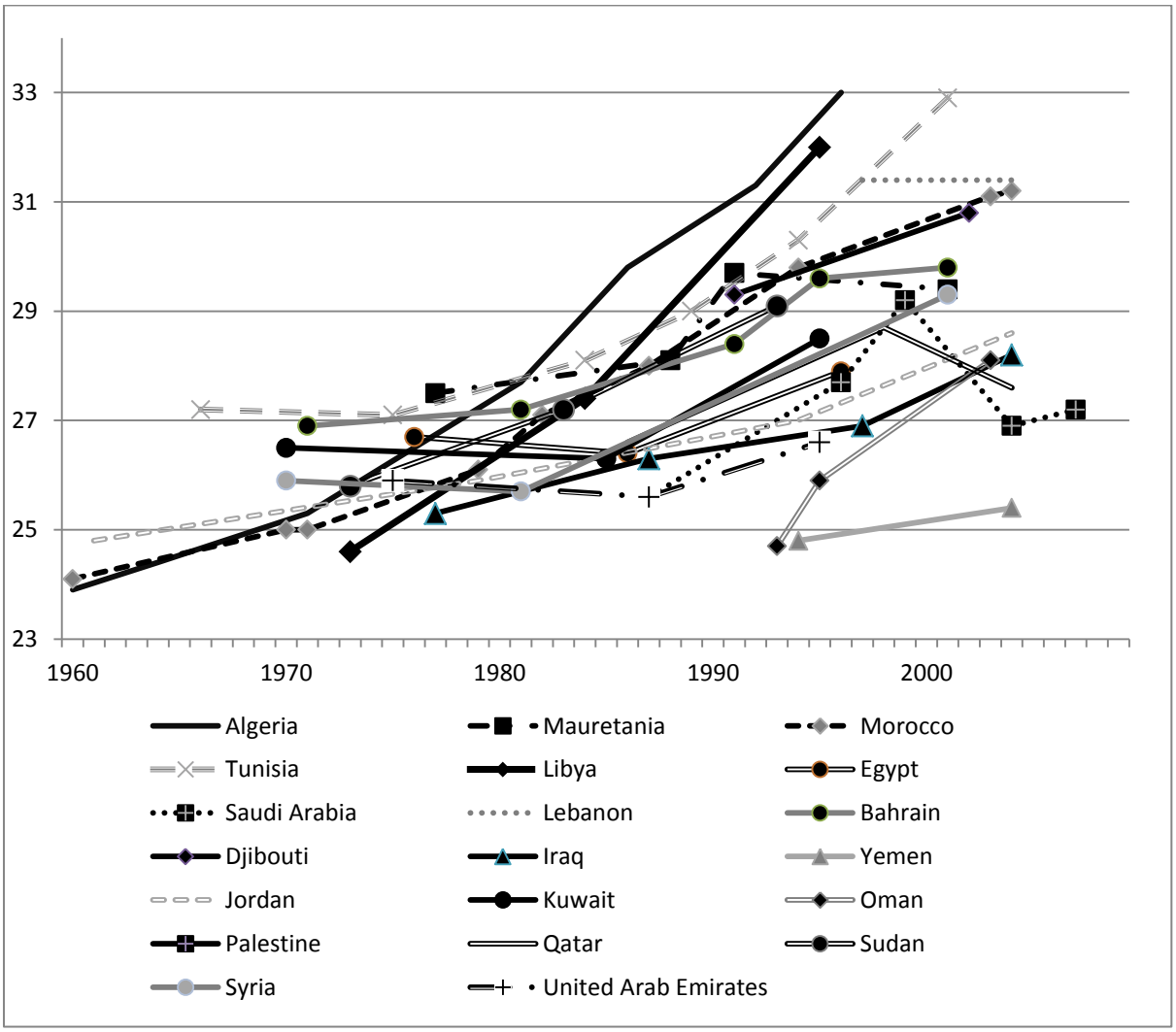


3 The Marriage Revolution in the Arab World

Marriage in the Arab world has undergone such profound changes during the previous decades that scholars have started to talk about a marriage revolution (Rashad & Osman 2003; Tabutin & Schoumaker 2005). Ages at first marriage have risen considerably, especially among females. Around the middle of the twentieth century, females in Morocco, Algeria, Mauretania, Libya, Kuwait and Saudi Arabia married on average between their eighteenth and twentieth, and it was not uncommon that girls married between 12 and 15. Today ages have gone up. In several Arab countries the singulate mean ages at marriage (SMAM) among

females have risen to around 30, and considerable proportions of women marry in their thirties.

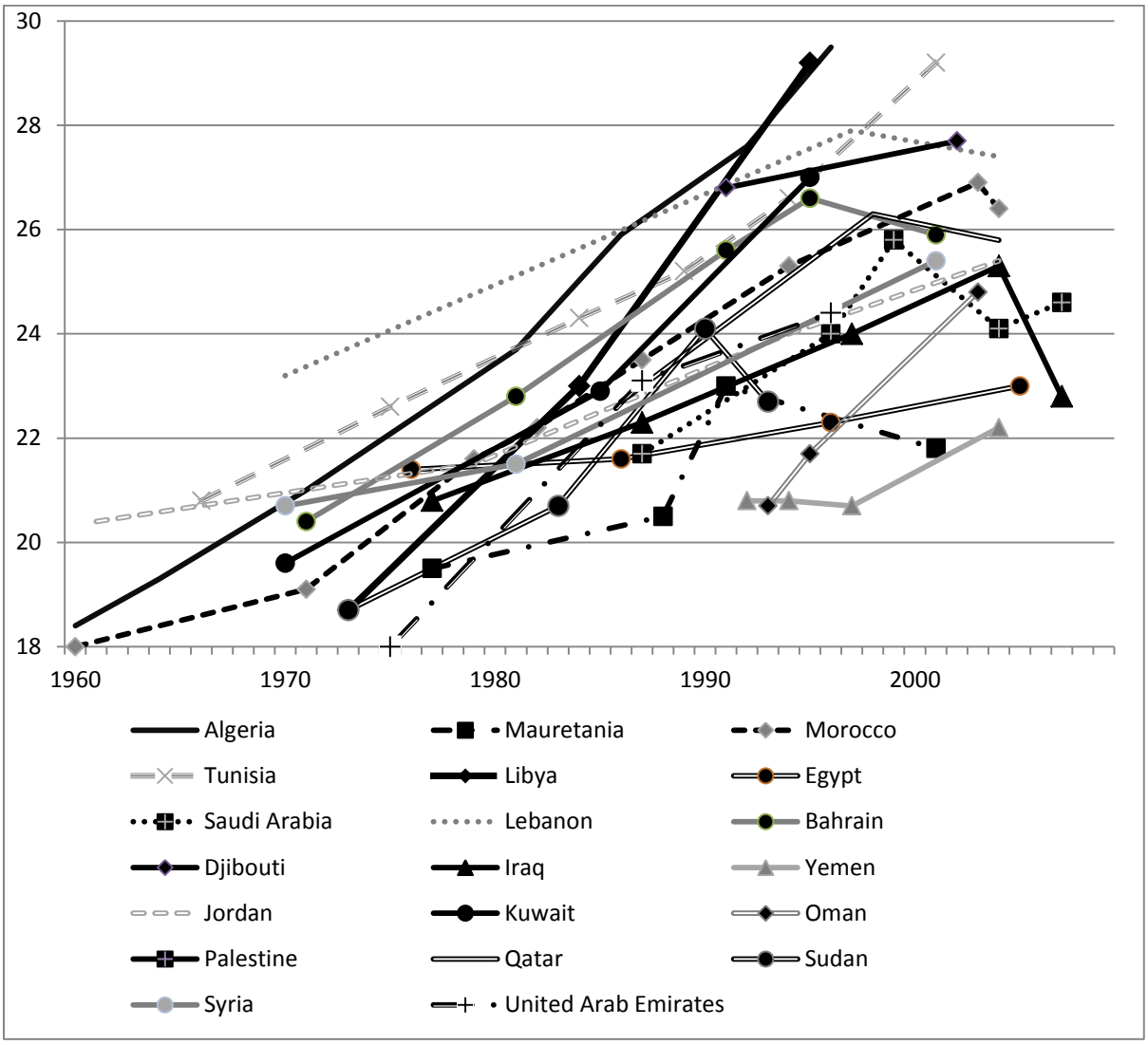
Graph 9: Singulate mean ages at marriage among males



Source: Source: United Nations, World Marriage Data 2008

Legal changes, prolonged education and increasing labor participation of women, are three main factors why ages at first marriage have increased. In several Arab countries minimum ages at marriage have been established, and in other countries the minimum age at marriage has been heightened (Roudi-Fahimi 2010). On average, the higher a girl is educated, the later she marries. Rashad and Osman (2003: 26-29) have shown that for uneducated females chances of being married in age category 20-24, were at least twice (Tunisia and Egypt), and in some countries even three times higher (Algeria and Yemen) than for girls who had finished their secondary school. Education keeps girls temporarily away from the marriage market. Entering matrimony is supposed to occur only once education is finished. At the same time education might make females more selective in their partner choice (Marks 2011b: 26).

Graph 10: Singulate mean ages at marriage among females

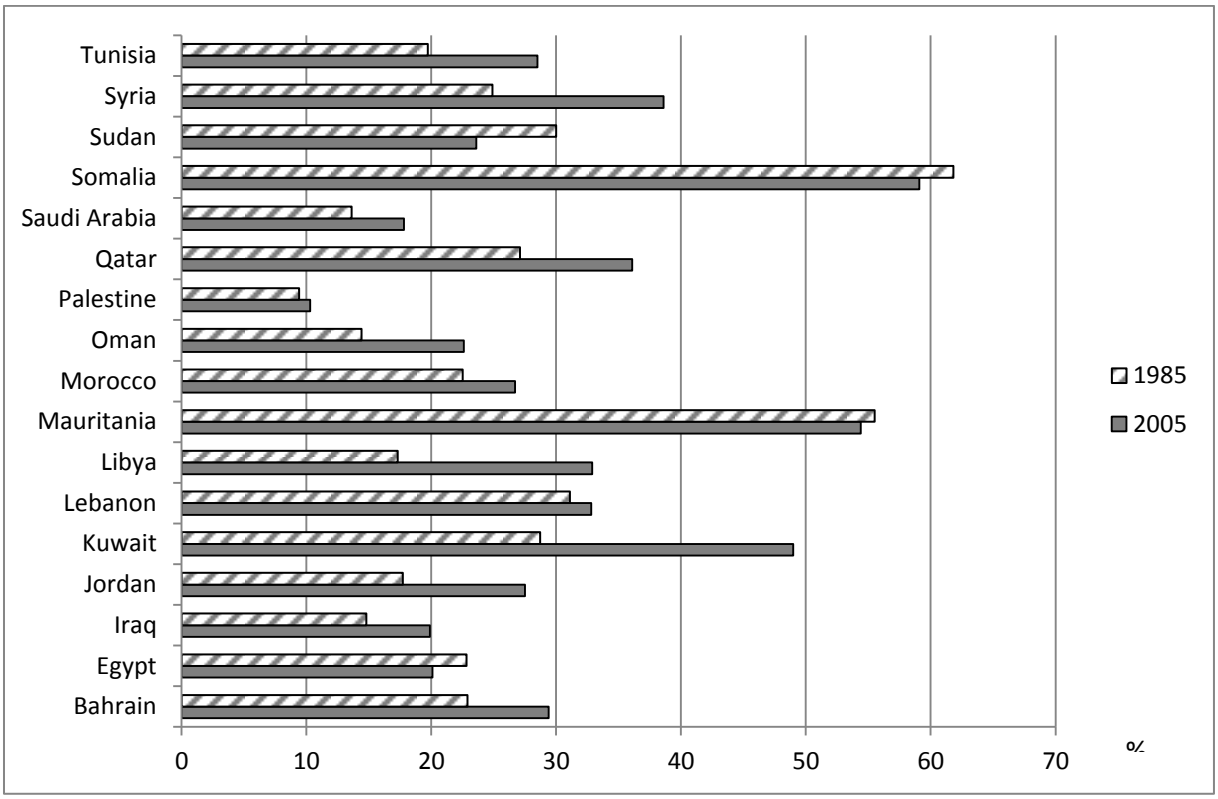


Source: Source: United Nations, World Marriage Data 2008

Paid labor among women is another factor which tends to increase age at marriage. Although females in the Arab World have the lowest employment rates in the world (Fargues 2005: 46), important change has taken place recently (graph 11). Ever since 1985, the percentage of women in the labor force has increased in many Arab countries.

Another reason why ages at marriage have risen, is the transition from arranged marriages to free partner choice. In the past, it was common that parents chose a partner for their children (Khlat 1997; Olmsted 2011). Today, a majority of youngsters is allowed to choose their marriage partner (Rashad, Osman & Roudi-Fahimi 2005). Arranged marriages usually occur earlier on in life, since the parents of the groom and bride can start the quest for a marriage early on. In the case of free choice, males and females start their search when they are mature (Carmichael 2011; Carmichael, De Moor & Van Zanden 2011).

Graph 11: Percentage of females (ages 15+) active at the labor market

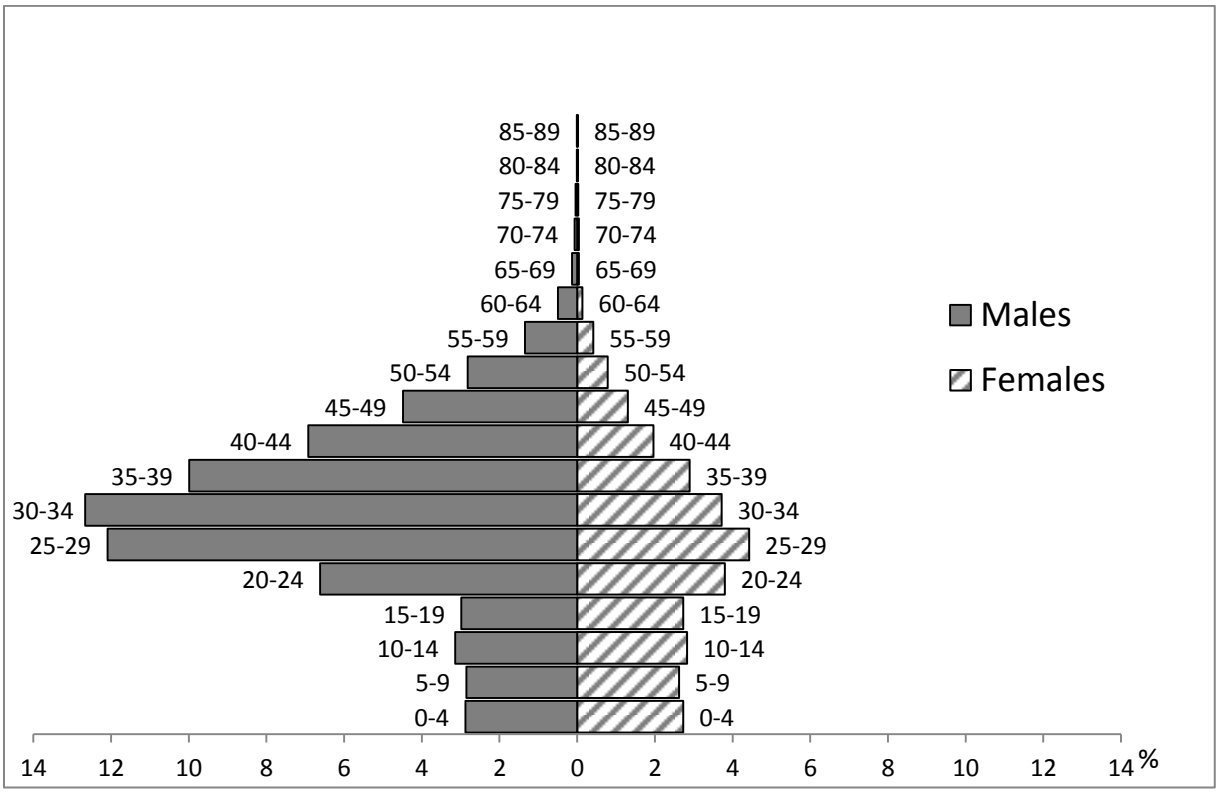


Skewed sex-ratios at marriageable ages are another reason why ages at first marriage have risen. This is especially the case for Qatar and the United Arab Emirates, which received in the recent past unaccompanied male migrants, working mainly in oil-industry and construction (McFalls 2007: 21). As a consequence, there has arisen a female shortage at the marriage market, which makes it harder for males to find a partner. This is a reason why men in that region often search their partner outside their country of residence (Rashad, Osman & Roudi-Fahimi 2005).

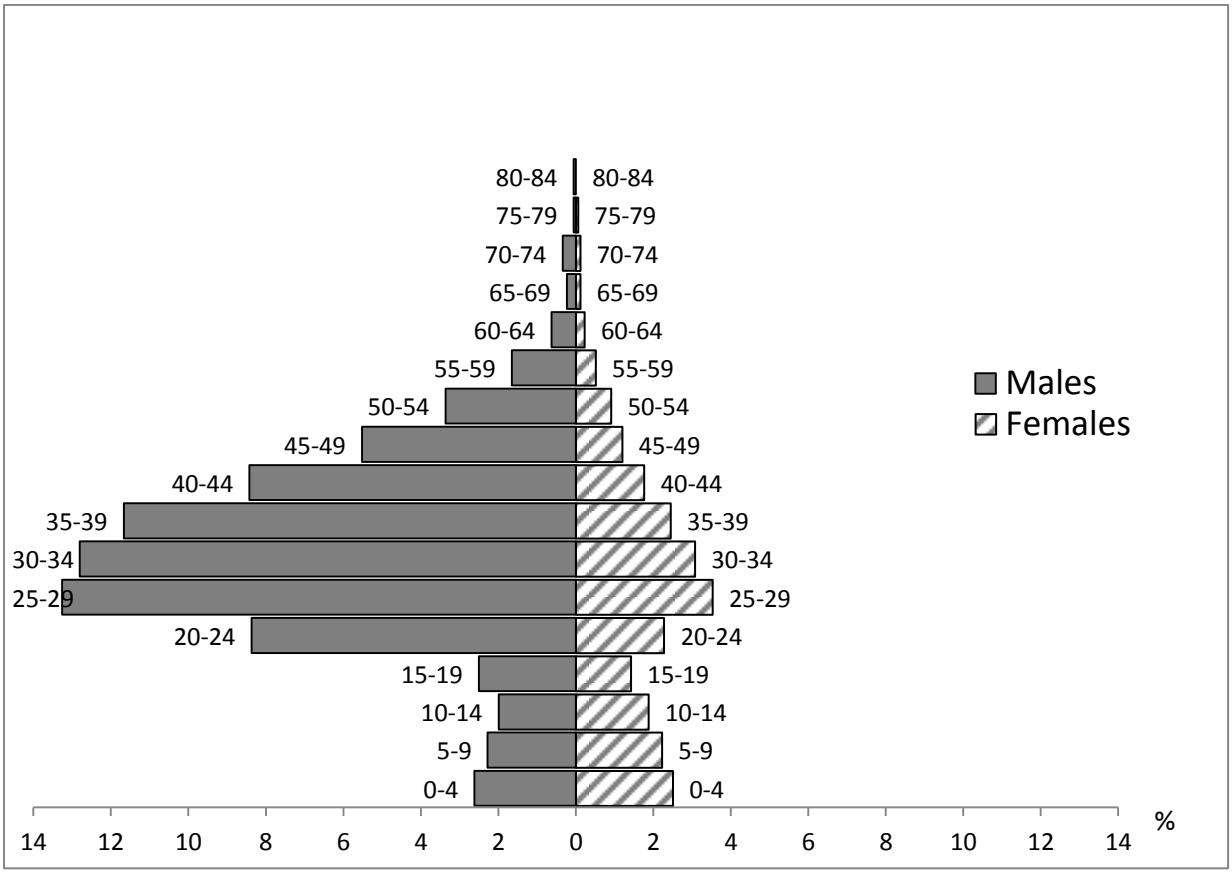
The rising cost of wedding is another cause of marriage postponement. Towards the end of the 1990s the average cost of a wedding in Egypt amounted up to about $6,000, while yearly GNP per capita income was only $1,490 (Singerman & Ibrahim 2001). That explains why young men and their families spent years to save sufficient money.[4] Among other things, money needs to be saved for the wedding party, the *Shabka* (consisting of rings or gold), the dowry, housing, furniture, electronic devices (televisions, satellite antennas, refrigerators, etc.).

[4] Traditionally, 3/4th of the costs of the marriage are bearded by the groom and its family. However, an increasing number of brides and their families are willing to share a larger part of the costs of getting married. Increased labor participation of females facilitates this development.

Graph 12: Skewed Sex-ratios in the United Arab Emirates, 2010



Graph 13: Skewed Sex-ratios in Qatar



The trend towards more expansive wedding parties and bridal gifts started in the Gulf Countries when oil business reached a high in the 1970s and marriage celebrations grew larger and larger. However, when the oil boom was over, more men in Saudi Arabia, Bahrain, Qatar and the United Arab Emirates were no longer able to afford such an expensive start of marriage, which had become the expected norm. As a result, more men started to search partners from abroad, who had less costly expectations. To counter-act that native females stayed more and more single, marriage fund-foundations were established. The United Arab Emirates' Marriage Foundation, for example, intends to support marriages between UAE-nationals by reducing the cost of a wedding. If a man from the UAE has an income below a certain level and intents to marry a woman from the UAE, he might apply for a wedding grant (Rashad, Osman & Roudi-Fahimi 2005: 6).

The unaffordability of marriage has led to an incline in non-conventional forms of marriage, like *urfi*, *misyar* and *muta'a* marriages (Singerman 2007; Rashad, Osman & Roudi-Fahimi 2005). These marriages are clandestine, secretive and not covered by public administration, as marriage partners sign their own certificates. Partners engaging in such arrangements mostly do not share a household on a permanent basis, they rather meet in hotel rooms, apartments or flats (Singerman 2007: 29). Such non-conventional marriages are especially attractive for males, as they do not include wedding parties and reduce the financial responsibilities of men towards their wives. Notwithstanding the large attention to the phenomenon in the media, estimations suggest that only a small proportion of the population engages in non-conventional marriages. For Egypt, Sahar El-Tawila and Zeinab Khadr (2004) estimated that only 4 percent of the population in the age-category 18-30 was engaged in *urfi* marriages. Among students it amounted up to 6% (Singerman 2007: 29).

Apart from rising ages at marriage and the rise of non-conventional marriages, a decline in polygamy is observable as well (Tabutin & Schoumaker 2005). Polygamy has never been widely spread in the Arab world, but has always been a part of the marriage system, as Islamic law allows a man to marry up to four women as long as he is able to provide for them and treat them equally. Only in Tunisia polygamy has been forbidden by law (in 1956, Tabutin & Schoumaker 2005). Recently more limitations on polygamy have been implemented in several Arab countries. For example, the new family code in Morocco permits a woman to add a clause to the marriage certificate in which she expresses that her husband is not allowed to marry a second wife.

While so many changes regarding marriage have occurred previously, it is striking that consanguinity has stayed a specific feature of marriage in the Arab world. Traditionally, Arab Muslims and Christians prefer sons to marry a daughter of their father's brother. Family honor, modesty, family solidarity and property consolidation have been put forward as the most important reasons why this type of cousin marriage, which outside North Africa and the Middle East is rare, functions as an ideal in the Arab world (Khlat 1997). In some Arab countries consanguinity decreased, in others it expanded (Tadmouri et al. 2009).

4. A second demographic transition?

Declining marriage is a characteristic of the second demographic transition in Europe, and has been interpreted as an outcome of the weakening of the institution of marriage and the empowerment of women. Since for several decades ages at marriage in the Arab World are on the rise, females are enjoying more education, the number of women that perform paid labor is growing, women's rights are improving, and modern forms of birth control (pill and IUD) are used more frequently, one could argue that the Arab World has entered the second demographic transition. However, simultaneously important features of this transition are (still) absent or are only present in an embryonic phase (table 3).

Marriage decline in Europe (roughly from 1970 on) took the form of rising ages at first marriage, growing rates of cohabitation, an increasing number of births out of wedlock, and a strong incline in divorce rates (Van de Kaa 1987). Such a weakening of the marriage institution has not been observed in the Arab countries, although the legal and socio-economic position of women has improved and non-conventional forms of marriage have risen in the recent past. The age at first marriage increased, but marriage has stayed more or less universal. Crude marriage rates have inclined in most Arab countries over the previous decades (table 4), while the percentage of ever-married in the age category 45-49 saw only minor changes (table 5). Only in Lebanon a rise in permanent celibacy is observable.

Table 4: Crude Marriage Rates, 1970-today

Countries	Around 1970	Around 1985	Around 1995	2000 or later	
				Second latest	Latest
Algeria	4,7	5,6	5,5	8,5	9,6
Iraq	4,1	8,0	5,6	6,8	9,6
Qatar	3,1	3,0	2,8	3,4	3,7
Lebanon	7,9		8,8	7,4	7,2
Libya	7,3	4,9	4,8	5,3	6,0
Saudi Arabia			3,4	4,6	5,2
Syria	9,9	8,9	8,5	10,7	10,6

Source: World Marriage Data

Table 3: Summary of most important features and developments related to the first and second demographic transition in Europe and the Arab countries.

		Europe	Arab world
Fist Demographic Transition	Mortality decline	Gradual: 18-20th century	Fast: 20th century
	Fertility decline	Gradual: ±1850-1965 Result of traditional forms of birth control	Very Fast: 1960 - today Result of rising ages at marriages and traditional and modern contraception within marriage
	Nuptiality	Declining ages at marriage Increase in marriage intensity	Rising ages at marriage No major change in marriage intensity
	Union Formation:	No or very few cohabitation	No or very few cohabitation
	Population growth	Strong	Extremely strong
Second Demographic Transition	Union Formation	Rise in consensual union	Consensual unions are rare or non-existent. Rise in non-conventional marriages
	Marriage	Diminishing interest in marriage Rising ages at marriage Decline in marriage intensity	Marriages stays a prime goal in life Rising ages at marriage Marriage is still universal
	Divorce	Strong rise in divorce rates	No clear rise in divorces; partially even decline
	Fertility	From 1965 on below-replacement fertility	Most recently below-replacement fertility, mainly in certain urban areas
	Contraception	Modern techniques; self-fulfilling conception	Modern techniques; mainly preventive contraception
	Births out of wedlock	Strong rise from 1980 on	Marginal phenomenon
	Sexuality	In- and outside marriage; Weakened link with love, marriage and fertility	Mainly restricted to marriage; rise in non-penetrative pre-marital sex. Brides are still supposed to enter marriage as a virgin Still a strong link between, love, sex, marriage and Reproduction

Table 5: Ever-married at ages 45-49

	1970's		2000's	
	Females	Males	Females	Males
Algeria	98,8	97,5	96,2	97,7
Morocco	97,7	96,6	93,2	93,3
Lebanon	93,1	94,3	87,7	93,1
Syria	97,6	97,3	95,4	98,5
Jordan	97,6	98,4	94,6	97,8
Bahrain	98,1	92,2	91,2	91,7
Egypt	96,1	96,2	98,3	n.a.

Source: World Marriage Data 2008
n.a.: not available

Although data on cohabitation and births out of wedlock in the Arab countries are scarce or even non-existent, there is reason to believe that both are small-scale phenomena, as they are taboo and in many countries against the law (Olmsted 2011: 410; Youssef 1973: 334-335). In the United Arab Emirates, for example, cohabitation and giving birth to a child out of wedlock is illegal and can lead to imprisonment. In the case of foreign nationals, it can also lead to deportation (Kirdar 2010.). Under such circumstances, cohabitation and births out of wedlock can only be marginal.

When it comes to divorce, no systematic increase has been observed, and in some countries (such as Egypt and Libya) an opposite trend is taking place (table 6). Declining divorce rates are likely related to rising ages at marriage, to the transition to free partner choice, and to the improved rights of women. Early marriages lead more often to divorce (Roudi-Fahimi 2010 2011), and the same is probably true for arranged marriages. As both phenomena are declining, unions become more stable. In the past, divorce was more widespread in the Arab world as males could easily divorce and remarry, while that was not true for women. By only recalling three time 'You are repudiated', and reporting this to the local authorities, a man could divorce his wife (Naamane Guessous 1990; Tabutin & Schoumaker 2005). Due to legal changes, this is in several countries (for example Morocco) no longer possible. Furthermore, legal changes have led to increased financial obligations towards divorced women, which makes men less willing to divorce.

Traditional ideas around sexuality and family formation, for example that a women should enter marriage as a virgin, are still much alive among the Muslim population in the region. In conservative circles, the ritual in which a blood-stained sheet is shown to the guests at the wedding night, as sign that the woman has been deflowered, is still practiced. Moreover, medical virginity tests and the rush on hymen restore surgery's do illustrate that women are still expected to stay virgin before marriage (De Jong, et al. 2005: 53). This is another reason to believe that the recent changes in marriage and fertility do not (fully) match the concept of the second demographic transition. In the Western World, the second

demographic transition went hand in hand with a gradual disentanglement of the links between love, marriage, sexuality and reproduction (Zwaan 2004: 66). Such a disentanglement has not (yet) been observed for the Arab world as love, sexuality and reproduction are in principle still a prerogative for married people. However, in principle it is perfectly feasible that the next generation of young people in the Arab world will experience a cultural and a sexual revolution similar to Europe in the 1960s. There are signs that changing attitudes and behaviors are underway. A recent study showed that in Rabat, young men and women are increasingly practicing pre-marital non-penetrative sexual activities (Bakass & Ferrand 2013). These groups might very well pave the way towards a demographic transition similar to Europe. However, cultural and religious opposition against such a new development will be great and for the moment marriage is still a holy institution.

Table 6: Crude Divorce Rates, 1970-today

Country	Around 1970	Around 1985	Around 1990	2000 or later	
				Second Latest	Latest
Egypt	2	1,6	1,1	0,9	0,9
Lebanon	0,6	1	1,1	1,2	1,1
Iraq	0,4	0,1	1,5	..	..
Libya	2	0,9	0,3	0,3	0,3
Palestine	..	..	1,3	1,1	1
Qatar	1,6	0,8	0,9	0,8	1
Syria	0,6	0,6	0,8	0,9	1
United Arab Emirates	..	..	0,9	0,9	0,9

Source: World Marriage Data 2008

5 Reducing the demographic divide

The world is roughly divided in countries characterized by high life-expectancy, low fertility (an old population) and (upcoming) population decrease, and countries with low life-expectancy, high fertility (a young population) and population growth. Hence the term demographic divide (Kent & Haub 2005). Although demographic variables are not the only determinant of wealth and well-being, high fertility and massive population growth frequently form a barrier to economic development (other factors remaining equal). Most countries with high population growth are also countries with high poverty, high illiteracy, endemic health problems, and little-developed infrastructure (Kent & Haub 2005).

The so-called quantity-quality trade-off explains the challenges of high fertility and high population growth to a large degree (Becker 1960). Parents have a limited number of resources available which they have to divide among their offspring. Consequently, the more children in a family, the less resources remain for each individual child. The resource dilution model stipulates that the chances of receiving high quality education, health care, housing, et

cetera decreases as the number of siblings increases. The decline of fertility opens up the road to the upbringing of so-called high-quality children.

High fertility and population growth also lead to challenges on the state-level. Instead of using tax revenues to invest in the quality of public services, more money is needed to supply the growing population with existing services. Instead of investing in the quality of education (better buildings, more equipment in the form of books, computers, sophisticated methods), developing countries with high population growth spend most of their educational budget in building new schools and contracting more teachers. As a consequence the quality of education often lags behind (out-of-date schoolbooks, no or limited computer equipment, old-fashioned methods of instruction). Comparable challenges are found in the fields of health-care, infrastructure, transportation and housing (Kent & Haub 2005).

High population growth also causes environmental problems. In the long run, growth leads to scarcity of arable land, insufficient water, overgrazing, deforestation, desertification, air and water pollution, and depletion of natural resources. In this sense, population growth adds to the destruction of ecosystems, and reduces the earth's (re)producing capacities. Population growth can generate or reinforce natural disasters, famines and political conflicts. All these factors form a challenge for the Arab World, as is proven by massive rural-to-urban migration, high-speed urbanization, growing shantytowns, rising food imports, growing water-scarcity, desertification and high unemployment rates among young people. Because of high population pressure in the countryside, and limited resources in the form of employment, arable land, water resources, millions of Arab country-dwellers made in the course of the twentieth century their way to major cities in the hope of finding employment and a better living in regions with expanding industry and/or services. In the case of cities like Cairo, Alexandria, Damascus, Casablanca and Algiers, more migrants moved to the city than jobs were created and affordable dwellings were constructed. As a result, shantytowns arose and illegal housing expanded in major Arab cities (Puschmann 2011). In that sense, a relocation of poverty and misery from the countryside to the cities occurred, creating major challenges for the urban authorities.

Rapid population growth in combination with ongoing rural-to-urban migration also leads to food and water shortages. Water availability per capita has been declining over the last decades (Al-Weshah 2002). This means that the countries in the region become more dependent on water and food supply from abroad, and that the risk of political conflicts rises.

Family planning may help to reduce population growth and its negative effects on development. Gradually the balance between demographic expansion and economic development can be restored, which will open up new opportunities. Programs to tackle poverty, improve living standards, eradicate shantytowns, improve housing conditions are more likely to be successful if population growth is tempered. Quality investments in education, health-care and infrastructure will increase human development and improve the region's competitiveness. Declines in population growth will help to avoid natural disasters

and will limit the region's dependence on food and water supply from abroad. Equally, unemployment will decrease as the influx of young people at the labor market is reduced. The reduction of offspring will lead to capital concentration, which in combination with increased education opens up new possibilities for investments. Finally the accelerated decline of fertility and population growth will decrease rates of rural-to-urban migration and will open up new possibilities to reorganize the urban environment.

6. Empowerment of women and the end of patriarchy?

Since women only enter marriage at later ages and since age differences between spouses are becoming smaller, women's bargaining position and agency within the family and society is growing. Whereas previously, adult life started with marriage and family formation, females in the Arab countries today enjoy a prolonged period of single life in their family of orientation. This opens up new opportunities: more and more girls go longer to school and participate in the labor market. The gap in literacy rates between girls and boys has largely disappeared, and at universities females are already better represented than males (Courbage 2014, this volume). Many young females in the Arab world today are not only better educated than their mothers, they are also better educated than their fathers and husbands. In the long run, this might break down the patriarchal system (Fargues 2005: 47).

When it comes to labor participation women still lag behind, as paid labor is until today largely dominated by males. Nevertheless, major increases in the proportions of women that perform paid labor outside the household has been observed and there is reason to believe that women contribute, in fact, already more to the economy, because women's work is highly under-registered (Fargues 2005: 46; Fernea 2000). Women actually dominate certain fields of the labor market, like education, social work and domestic work, while in fields like justice, journalism, television and advertising, they are making major leaps forward. At the same time female leadership is becoming more common. Women occupy important executive posts in politics, religious organizations and non-governmental organizations (Fernea 2000). These new opportunities are made possible by supportive legal changes. In Morocco, for example, a law was passed in 2002 which assured that women had to have at least 10% seats in parliament.

As women are making progress outside the household, their position is also strengthening within the household. They enjoy more power over the household's resources and consequently have a greater say in decisions related to spending (health care, clothes, shoes, make-up, etc). Women also have more influence on the purchase of expensive items, like real estate and cars. Moreover, women's agency has improved as they more often successfully –with or without a veil – surpass the borders between the private and the public domain. This is possible because marriage occurs only later in life and the number of children is small. As a result women spend more time on non-reproductive related activities.

Since the mean age at marriage increases faster among women than among men, the age gap between spouses has grown smaller. This results in an increase in the bargaining power of women within the family. In general small differences in age between spouses have been interpreted as an indicator of more egalitarian relationships. In relationships in which men are older than their female partner, men enjoy advantages regarding status, experience and power (Van de Putte, et al.: 1235). With the trend towards age-homogamy these advantages of men are declining.

In certain regions in the Arab World, for example in Egypt, marriages in which females are older than their husbands (in the past a rare phenomenon) have recently become considerably more frequent (Osman & Shahd 2003). In these 'younger husband-older wife marriages', females have generally spoken more power than in the conventional 'older husband-younger wife marriage', not only because of the age difference, but also because of educational and occupational advantages, which usually go hand in hand with this type of marriage. Males in the Arab world, especially from the lower social strata, increasingly marry older females from the higher social strata – especially divorced, widowed or single females who surpassed the socially acceptable age at marriage – because they cannot afford the costs of marriage with younger females (Osman & Shahd 2003). The women who marry a considerably younger husband avoid marginalization by entering matrimony, while at the same time they increase their power, as their husbands are less experienced, less educated and financially dependent.

Table 7: Gender-Inequality Index

Country	1995	2000	2005	2008	2011
Algeria	0,46	0,52	0,46	0,43	0,41
Egypt	0,67	0,65	0,60	0,58	n.a.
Jordan	0,64	0,60	0,51	0,48	0,46
Kuwait	0,59	0,44	0,36	0,30	0,23
Libya	0,67	..	0,37	0,33	0,31
Morocco	0,71	0,69	0,54	0,53	0,51
Saudi Arabia	..	..	0,68	0,69	0,65
Sudan	0,72	..	0,65	0,63	0,61

Source: United Nations, Human Development Reports

That relationships are becoming more equal and that gender discrimination is diminishing, is illustrated by declining gender-inequality indexes (table 7). These indexes are based on indicators related to reproductive health (maternal mortality ratio and adolescent fertility rate), empowerment (female share of parliamentary seats and female attainment in secondary and

higher education) and labor participation (percentage of women in the labor force).[5] These indexes range between 0 and 1, whereby 0 indicates a situation in which complete gender equality exists, and 1 points to a situation in which females are as highly discriminated as possible in every domain of life. Judged on the basis of the gender-inequality indexes, women in Kuwait, Libya, the United Arab Emirates and Tunisia have made most progress during the previous years, while in Saudi Arabia and Sudan no progress has been made. Yemen is one of the countries with the highest gender inequality indexes in the world, although some progress has been made recently.

Although the position of women has improved in several Arab countries, we are still far away from gender equality. The fact that women in the Arab World have the world's lowest participation rates at the labor market and in politics, is telling enough (Fargues 2005). Urgent issues like violence towards women, female genital mutilation and polygamy are showing that many women in the region are still suffering. Especially in countries where Islamic Law is still dominant – like in Saudi Arabia – females have only limited rights inside and outside the family. As a consequence they keep being dominated by their husbands and have very limited freedom of movement outside the household. Notwithstanding some protests, women in Saudi Arabia still today are not allowed to drive a car. Legal change is needed. A good example is Morocco's 2004 *Moudawana* (family law code) reform, which improved women's status and liberty in many domains of life. However, legal change alone is not enough as social practice often considerably deviates from law, especially if it comes to issues within the privacy of the family. Education and political campaigns can help to open the road towards a new mentality in which the position of women is revalued.

7 Accelerated ageing

Although most reports on the Middle East and North Africa today are concerned with the fact that the Arab World has one of the youngest populations in the world, ageing has already started and will accelerate. Median ages are on the rise as the proportions of youth are dropping, while the percentage of (in-active) elderly people is increasing. A growing number of elderly people will have to rely on care from shrinking proportions of young people. As a consequence, burdens for the next generation and insecurity among the older generation is likely to augment.

Like in Europe today, ageing will become a challenge for Arab societies in the future, but in a different way. First, the pace of the ageing process will evolve faster than was the case in Europe, as mortality and fertility decrease faster in most Arab countries than in historical Europe. This makes it necessary to develop an ageing policy, to avoid negative consequences related to health-care, old-age pensions, and labor market performance. As

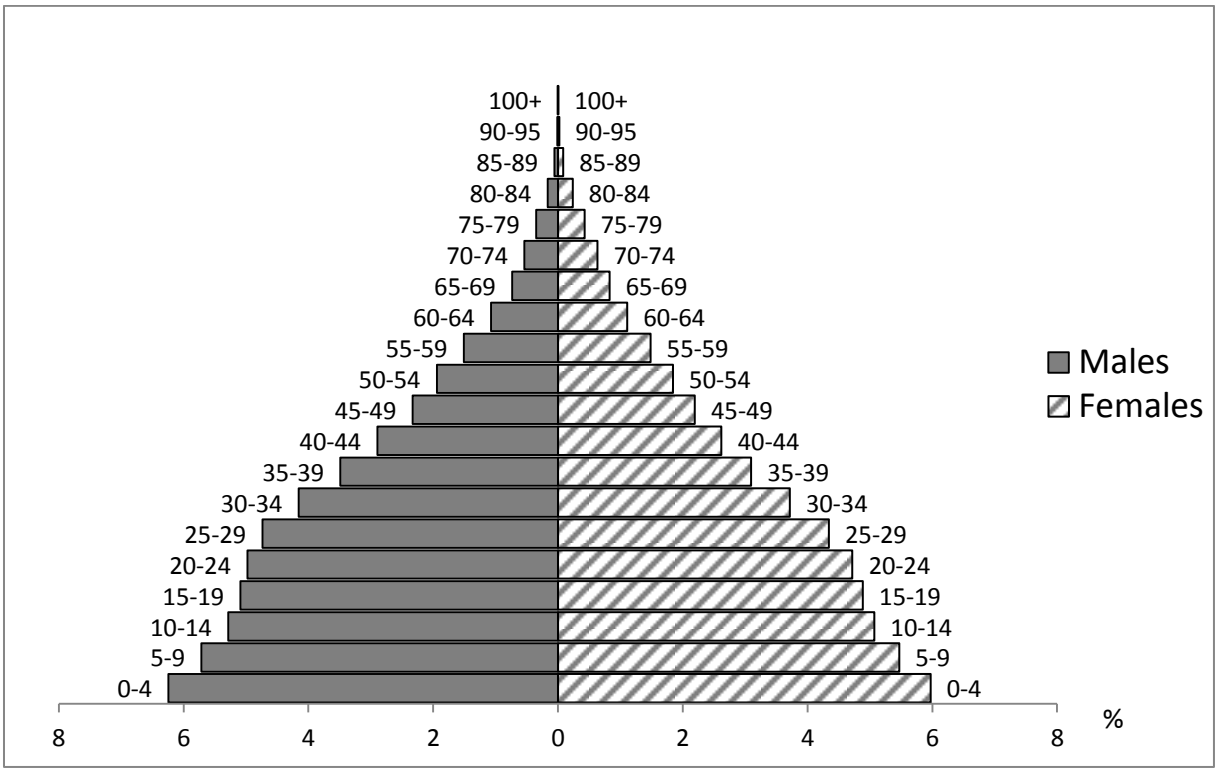
[5] United Nations, Human Development Reports: http://hdr.undp.org/en/statistics/gii/

ageing proceeds, pressure will arise on pension systems. These systems are likely to fail and even collapse if the current low retirement ages will not be raised (Kárpáti 2011). In the Arab World, ageing will cause other challenges than in the West, as in most countries in the region the primary safety-net is not a social security system, but family assistance (Olmsted 2005; Rashad, Osman & Roudi-Fahimi 2005). This means that the costs ageing generates will largely be carried by families and individuals. After all the coverage of the pension systems in the region is low, which means that few people in the region will be able to rely on retirement payment (Kárpáti 2011).

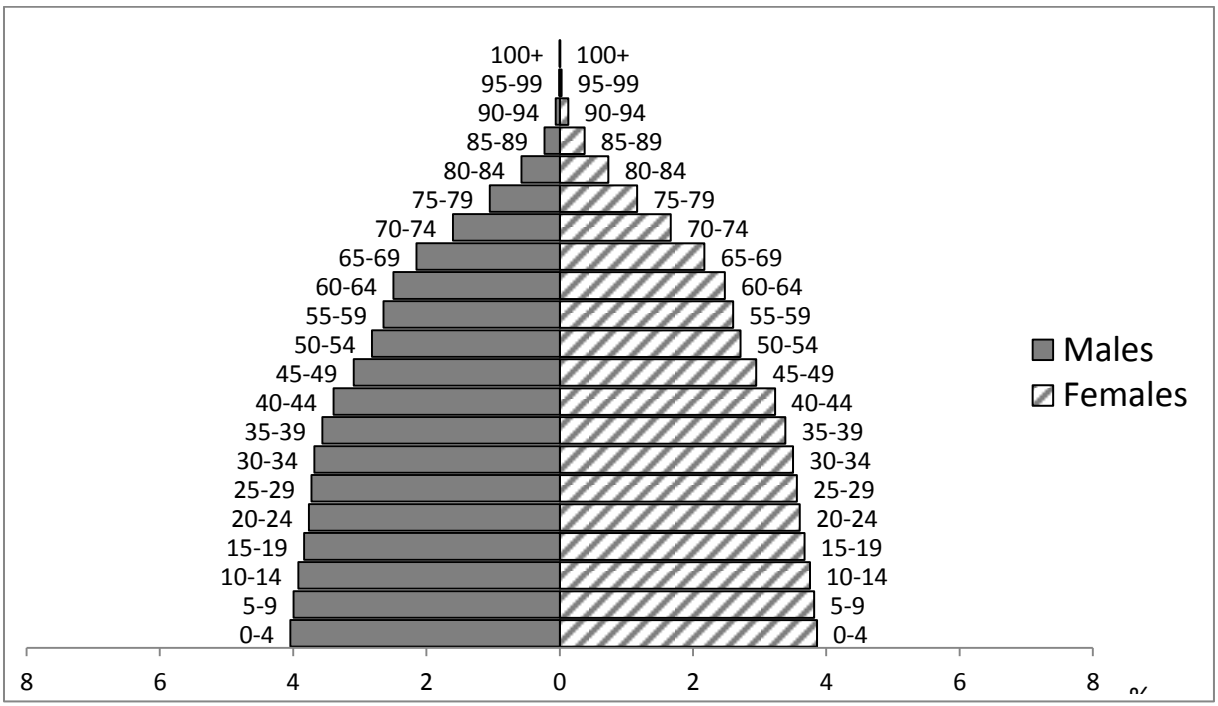
Due to differences in the timing and pace of the fertility transition there are major regional differences in the ageing process (graphs 14 to 23). The 'good' news is that during the next decades the richest Arab countries will be most affected by ageing, while the poorest countries will be least affected. The Gulf States will be most affected, as fertility has declined profoundly, and life-expectancy has risen spectacularly. Since most of these states provide health-care for free, public expenditure related to medical care will rise massively. An important factor is migration. The oil-rich countries of the Gulf have attracted huge numbers of migrants, which are often not accompanied by partners and badly integrated. As they grow older, these people will likely get into trouble as they are unable to rely on family assistance. The Maghreb is the second region which will be most affected by ageing. The high pace of the demographic change in combination with the poor social security provided by the states, makes this region vulnerable to the ageing process. Social inequality is likely to augment. A rift may arise between those families which can rely on remittances from abroad and those families which do not have such additional resources. In the Mashreq, and especially in the peripheral Southern Arab countries, the (negative consequences of the) ageing process will start later, as fertility has only recently declined. This gives these countries extra time to implement adequate ageing policies.

Some groups will be more affected by the consequences of ageing than others. Childless couples will face more difficulties. Women are more vulnerable than men because they live longer. The extra care needed for the elderly will largely be provided by younger females, which will decrease their chances to work outside of the household and consequently will decrease their potential to raise an extra income. While young females will have to spend less time and energy on child-rearing, they will increasingly have to look after elderly family members. Problems can partially be solved if the number of homes for elderly will be extended and if the cost of care in such homes will be provided by the state. However, such a policy will only be effective if the willingness of elderly people to move to old people's home increases. Currently, a very negative attitude towards such institutions exists as elderly people feel disowned by their children, if they are sent to such an institution.

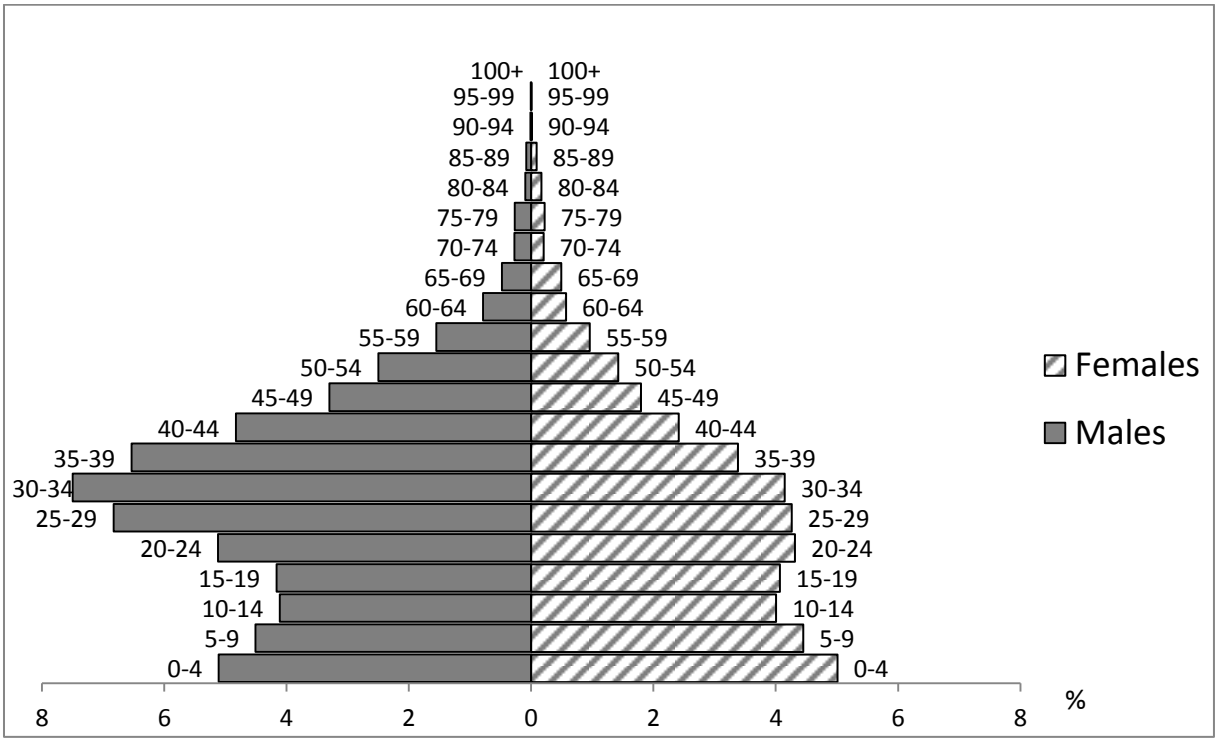
Graph 14: Age structure of the Arab population 2010



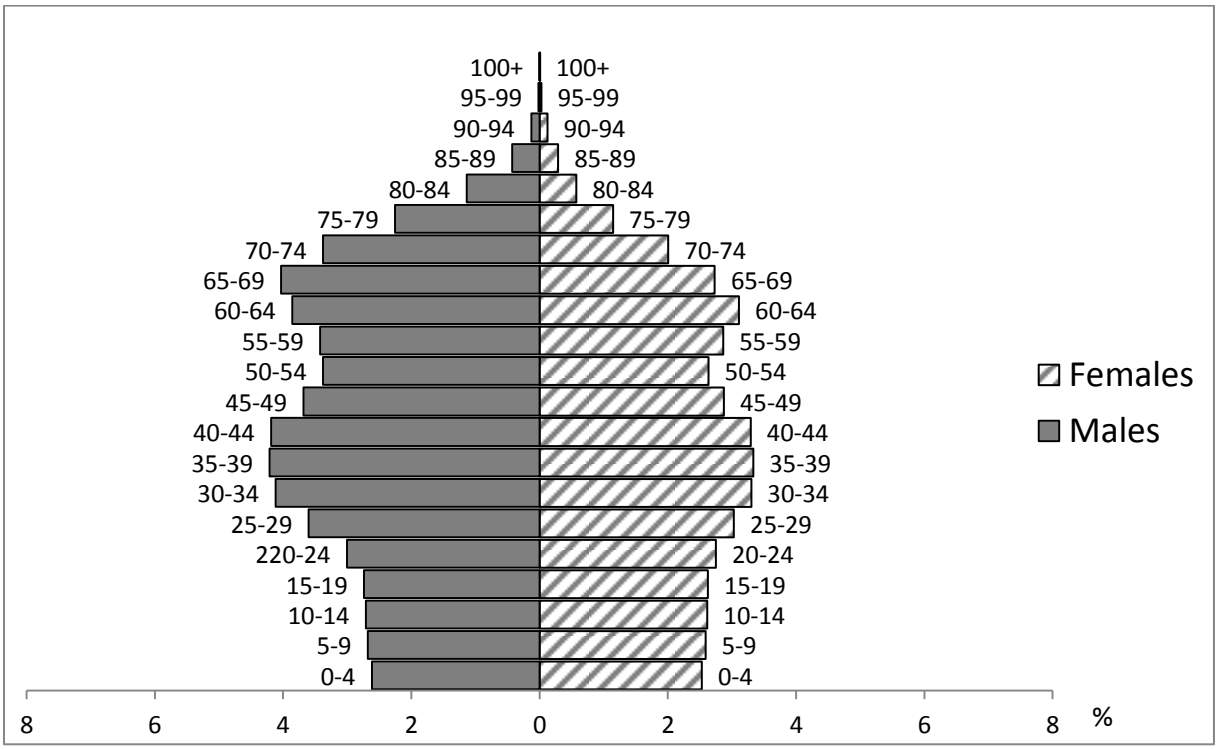
Graph 15: Age structure of the Arab population 2050 (projections)



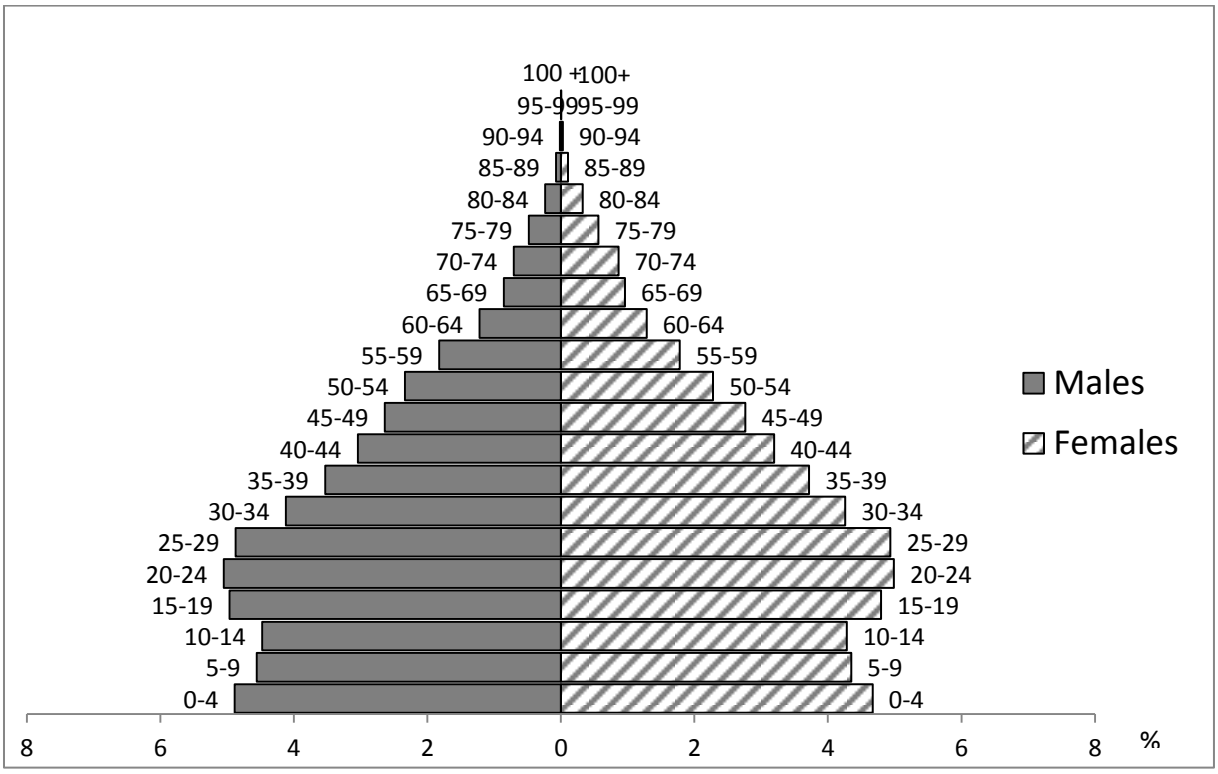
Graph 16: Age structure of the Gulf States 2010



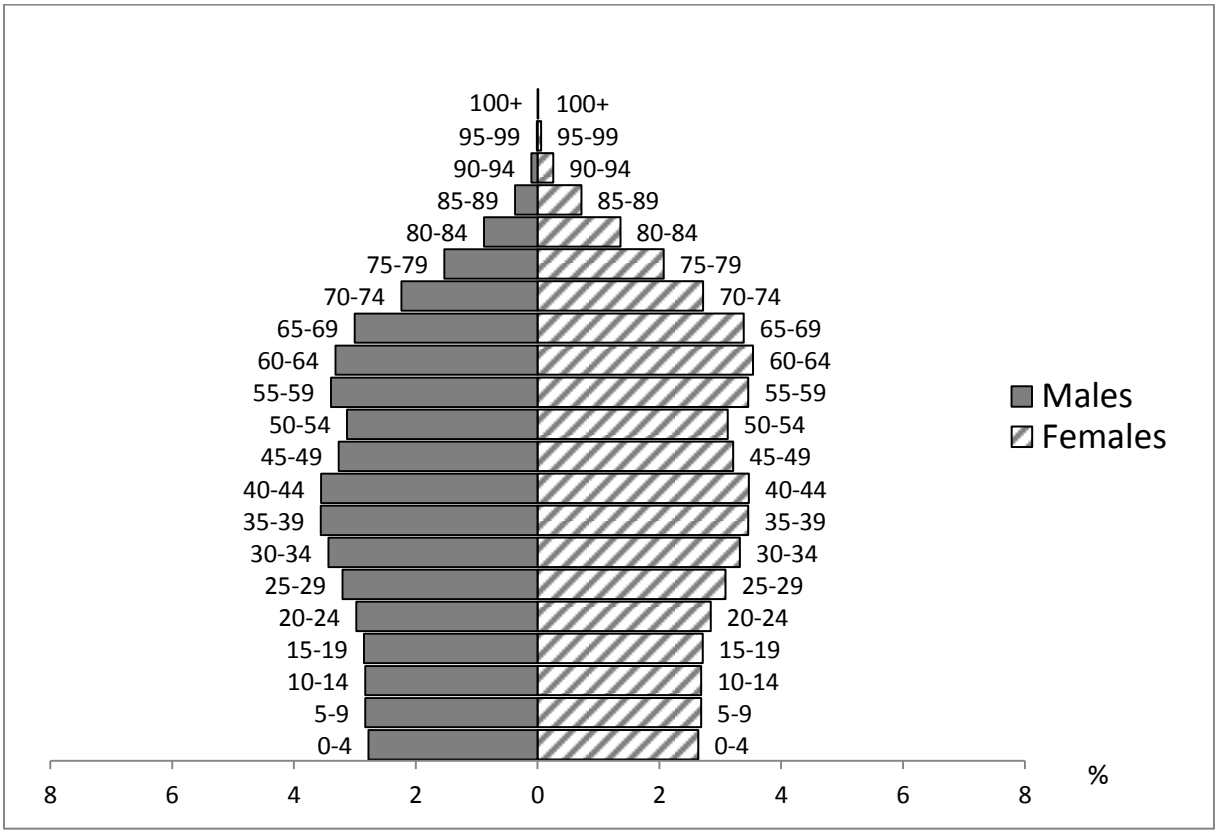
Graph 17: Age structure of the Gulf States 2050 (projections)



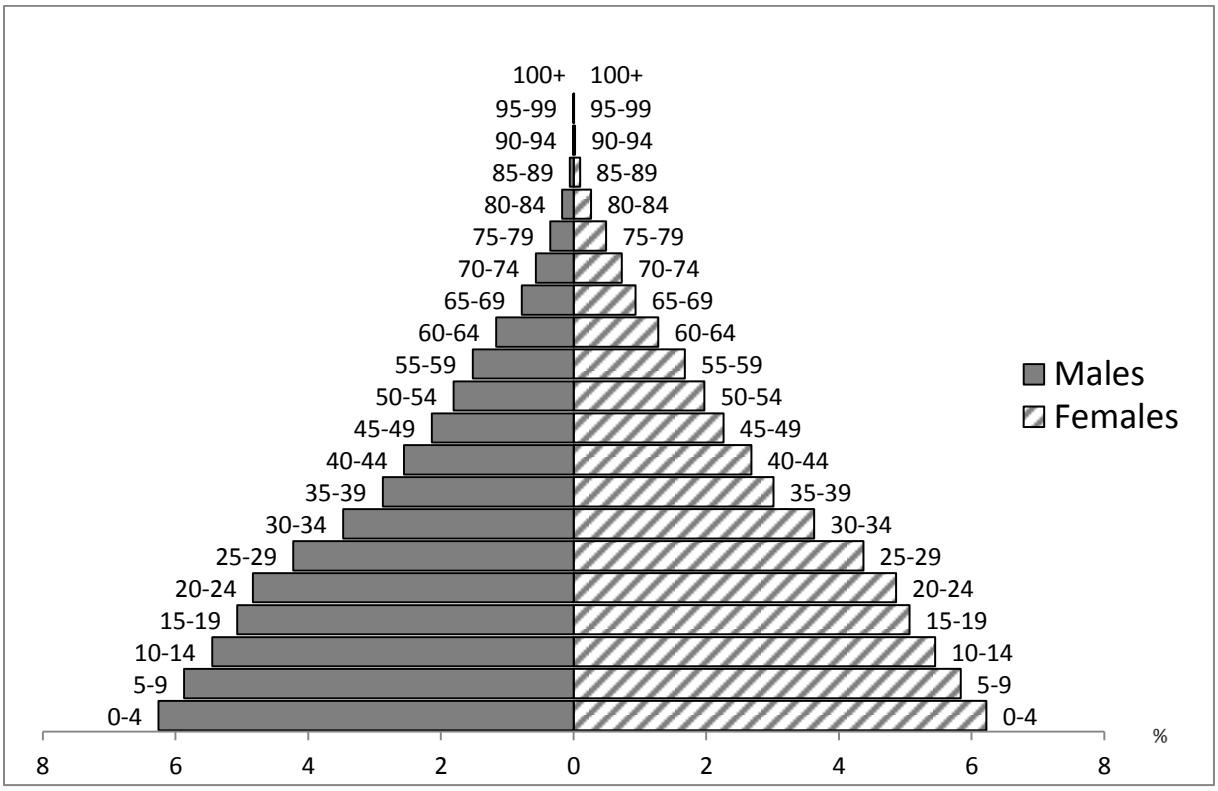
Graph 18: Age structure of the Maghreb 2010



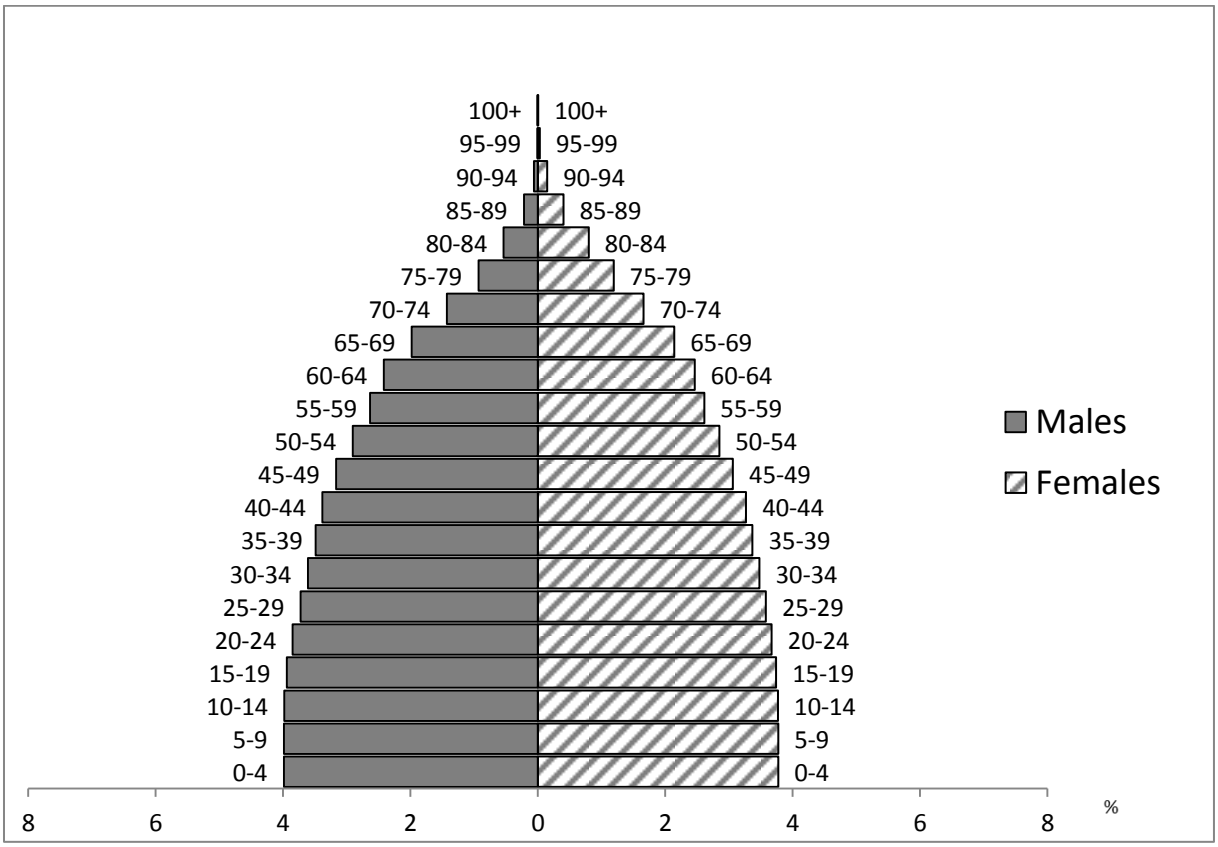
Graph 19: Age structure of the Maghreb 2050 (projections)



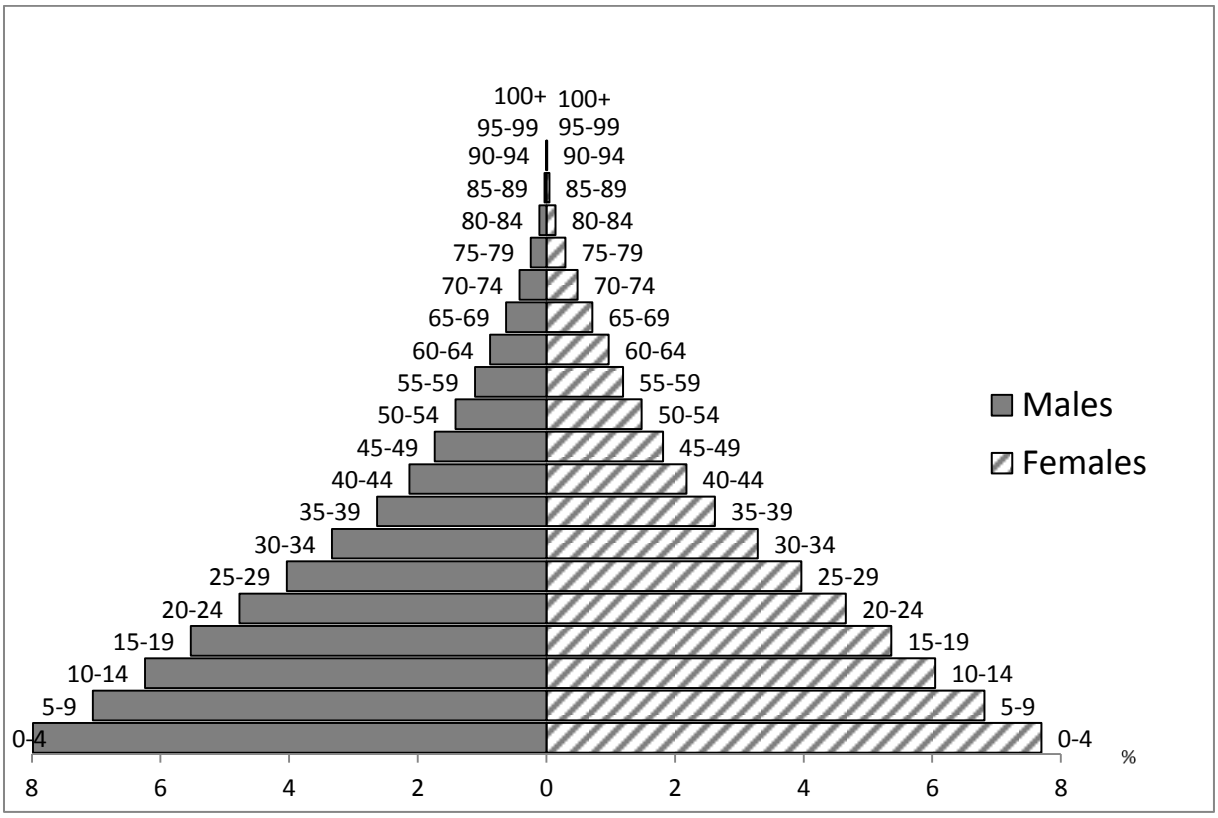
Graph 20: Age structure of the Mashreq, 2010



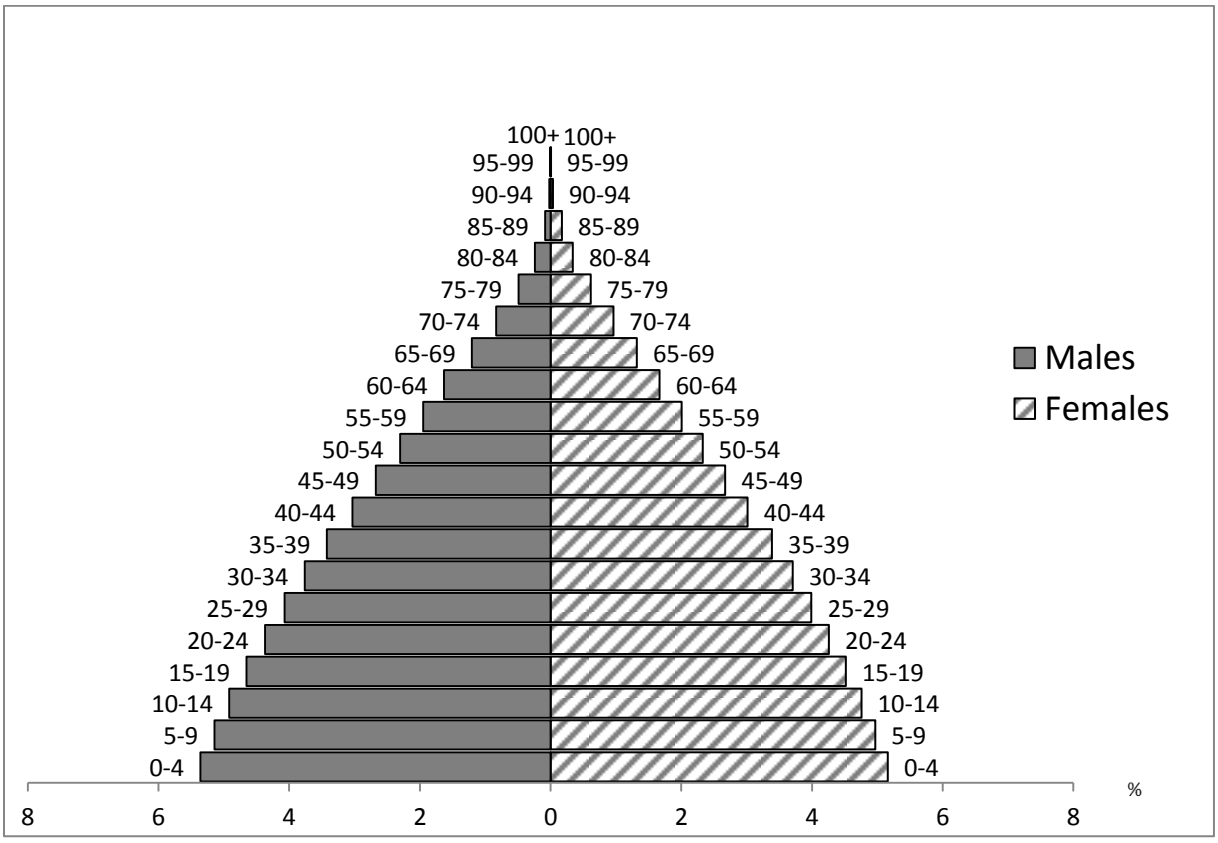
Graph 21: Age structure of the Mashreq, 2050 (projections)



Graph 22: Age structure of the Periphery 2010



Graph 23: Age structure of the Periphery 2050 (projections)



8. Realistic extremes: desperate adolescents, overstrained parents, family conflicts

Since delayed marriage is in some cases not the result of free-choice, but of hardship, higher ages at marriage will create frustrations among youngsters and tensions within families. Although youngsters in the Arab World have invested more in education than their parents, meeting the economic requirements for marriage has become more difficult. This can result in problems since marriage is linked to the transition to adulthood. As long as youngsters are not married, they are not fully perceived as adults, because they have no (religious and legal) allowance for sex and because they have not yet taken the responsibilities of setting up a household. Moreover, marriage is perceived as a religious obligation (Marks 2011b: 24). In this light, delayed marriage is a source of frustration. It may also lead to tensions within and between families as marriage in the Arab world is not only an individual decision, it also concerns families. The tricky point is that young people are expected to marry, want to marry, while marriage has become more difficult to attain.

As few singles set up independent households, youngsters spend a prolonged time of their life in their family of orientation. This limits the youngster's freedom, and extends the obligations of both parents and children. For unmarried females the limitations are most severe. Since women are until today expected to preserve virginity until marriage, female's freedom of movement is limited. In the patriarchal Arab world, parents and brothers try everything to control the sexuality of their families' unmarried females in order to preserve the honor of the family. Breaking the rules on female sexuality may lead to shame and may even result in honor killings (Zuhur 2003). In order to avoid that females lose their virginity before marriage, parents and brothers try to keep unmarried females as much as possible in the household. Contact with non-relative males is prohibited. Girls who are spotted with men, face the risk of social gossip, which brings shame to the family and might in turn decrease the females' chances of getting married.

In societies in which girls marry on average at age 30, the requirement of virginity is many times more demanding than in societies where the age at first marriage is 18. Limiting females comings and goings for another twelve years, is not evident. The fact that parents are often dependent on their daughter's income makes things more complicated. Moreover, girls are often better educated than their parents. Under such conditions it has become less likely to force daughters to obey. Females try to keep relationships secret, which causes fear and stress.

A less dramatic, but still urgent issue, is the financial burden which an extended period of life in the family of orientation brings about. As children live longer within their family of orientation, the time in which parents take care of their children is extended. This means that parents need to provide their children with food, clothes and housing during an extended period of time (Singerman 2007: 14). Simultaneously, the main financial transfer between parents and children is postponed, which is still another way in which the opportunities of youngsters are limited before marriage. At the same time, youngsters are expected to

contribute to the family budget, which limits their possibilities for private spending and saving money for later married life.

9. Marriage, youth bulges and revolution

Discussions on the background of the recent revolutions in the Arab world keep going on. Scholars point to a wide range of political (the pursuit of democracy, the end of corruption, etc.), economical (high unemployment rates, high food prices, etc.) and technological (role of the internet and social media) causes. Moreover, some analysts in the field are of the opinion that demographic factors play a decisive role in the outbreak of the Arab spring (Cincotta 2012; Cincotta this volume;). These authors focus on the so-called youth bulge theory (Möller 1968/69; Goldstone 1991; Urdal 2006; Heinsohn 2006; Cincotta 2012). According to this theory, the risk of revolutions and armed conflicts increases if there is an excess of young (15-24 years) people, especially young men.

There is no evidence that revolutions can be predicted solely on the basis of the existence of a specific type of population structure, i.e. a youth bulge. First of all, many revolutions have happened in the absence of such youth bulges. Second, young populations do not necessarily experience revolutionary events. During the nineteenth century, the Netherlands was characterized by a population structure which resembles today's Egypt. However, no notable revolution took place. Third, the Arab countries in which revolutionary events took off are themselves characterized by a great diversity in population structures. Tunisia, for example, has a much older population than Yemen. Both countries experienced more or less at the same time revolution. Judged on information on proportions of people aged 15 to 24, one would have expected that the Arab Spring had occurred much earlier in countries like Egypt, Libya and Tunisia. Consequently, models based on the youth bulge theory are unable to explain the timing of revolutions (Engelen & Puschmann 2011b).

A crucial missing factor in the existing debates, is the marriage change. Marriage has stayed one of the highest aims of young people in the Arab world and although youngsters have invested more time, energy and money in education than previous generations, access to marriage has become more difficult. This is one of the great disappointments of the Arab youth today. This has to do with the fact that their transition to adulthood is delayed and their sexuality is restrained during the prime of their life. This is reinforced by the fact that unmarried people are more eager to protest and use violence against the existing order than married people. Studies confirm that violence and social disorder is higher amongst (young) unmarried men (Courtwright 1998; Daly & Wilson 1990; Sampson, Laub & Wimer 2006). Marks (2011a) found evidence that unmarried males in Egypt are more willing to take part in high-risk political activity than married males.

10 The dual role of marriage in family dynamics and population growth

In this chapter we have shown that the profound changes in the marriage regime will have both positive and negative effects on Arab society. That is why we are talking about a dual role of marriage, a kind of Janus face. On the one hand, rising ages at marriage help to shrink the demographic divide between the Arab Countries and the West. Tempered population growth will have major positive impacts for individuals, families and society. Reductions in unemployment, declining rural-to-urban migration, poverty reduction, less environmental damage and more effective urban planning are some of the expected effects. Moreover, families will be released from the burden of feeding a great number of children. For children it will mean that parents will be able to spend more attention to them. Parents will have more resources available for each individual child.

Rising ages at marriage also have important positive effects on the position of women. Since marriage is postponed and the number of offspring reduced, women have more time available to engage in non-reproductive activities. This improves their bargaining power as paid labor gives them more power over the household's resources and consequently a greater say in all kind of decisions. Furthermore, as the age at first marriage has increased faster among women than among men, the spousal age gap is reducing.

However, marital change also brings about new challenges. Because of the advanced pace of fertility decline, ageing in the Arab world will accelerate. This will form a burden for the next generation. Since most states in the region provide only limited social security for their subjects, individual families will bear most of the extra costs ageing bring about. Ageing will affect especially women, because they have higher life-expectancy, less financial means, and less chances to rely on family assistance. Ageing could also create new limitations to women's freedom of movement, since most of the care for elderly people will be provided by women.

Marital change also brings about frustration, tensions and conflicts in families and society at large, because delayed marriage is not a free choice, but amongst others, a result of economic hardship. Furthermore, marital change implies a postponement in the transition to adulthood, which in turn, brings about limitations from and extra obligations toward parents. For females the limitations are severest, amongst other things because of the requirement of virginity before marriage. Young people are most frustrated because they have invested more in their future, but can reach major aims in life – like marriage – less easily. All these frustrations are likely to have contributed to the willingness to protest and riot against existing regimes in the Arab world.

Bibliography

Akl, E., Maroun, N., Major, S., Afif, C., Chahoud, B., Choucair, J. Sakr, M. & Schünemann, H. (2007). Why are you draining your brain? Factors underlying decisions of graduating Lebanese medical students to migrate. *Social Science & Medicine*, 1278-1284.

Al-Qudsi (2010). Arab Demography and Health Provision. Under Stressed Economics. In: S. Teebi (Ed.). *Genetic Disorders among Arab Populations*, 37-64.

Al-Weshah, R. (2002). The Role of UNESCO in Sustainable Water Resources Management in the Arab World. *Desalination*, 152, 1-13.

Ariès, P. (1980). Two Successive Motivations for the Declining Birth Rate in the West. *Population and Development Review* 6(4), 645-650.

Bakass, F. & Ferrand, M. (2013). Sexual Debut in Rabat: New 'Arrangements' between the sexes. *Population (English Edition)* 68(1), 37-59.

Becker, G. (1960). An Economic Analyses of Fertility. *Demographic and Economic Change in Developed Countries*. Universities-National Bureau Conference Series 11. Princeton: University Press

Bloom, D., Canning, D. & Sevilla, J. (2001). Economic Growth and the Demographic Transition. NBER *Working Paper* 8685.

Booth, M. (2002). Arab Adolescents Facing the Future: Enduring Ideals and Pressure for Change. In: B. Bradford Brown, R. Larson & T. Saraswathi (Eds.). *The World's Youth: Adolescents in Eight Regions of the Globe.* (Pp. 207-242) Cambridge: Cambridge University Press.

Bowen, D. (1981). *Contemporary Muslim Religious Attitudes toward Family Planning in Morocco.* Chicago: University of Chicago Press

Bras, H. (2014). Structural and Diffusion Effects in the Dutch Fertility Transition, 1870-1940. *Demographic Research* 30, 151-186.

Caldwell, J. (1976). Towards a Restatement of Demographic Transition Theory. *Population and Development Review* 2 (3/4), 321-366.

Caldwell, J. (1981). The Mechanisms of Demographic Change in Historical Perspective. *Population Studies: A Journal of Demography* 35(1), 5-27.

Carmichael, S. (2011). Marriage and Power: Age at First Marriage and Spousal Age Gap in Lesser Developed Countries, *The History of the Family*, 16(4)

Carmichael, S., De Moor, T. & Luiten Van Zanden, J. (2011). When the heart is baked, don't try to knead it. Huwelijksleeftijd en leeftijdsverschil tussen partners als maatstaf van agency voor vrouwen, in: T. Engelen, O. Boonstra & A.Janssens (Eds.) *Levenslopen in Transformatie. Liber Amicorum bij het afscheid van Prof. Dr. Klep* (Pp 208-221). Nijmegen: Valkhof Pers

Casterline, J. (2009). Fertility Prospects in the Arab World', *Paper* prepared for the United Nations Expert Group Meeting on Recent and Future Trends in Fertility. UN-POP-EGM-FERT/2009/09

Cincotta, R. (2012). Life begins after 25: Demography and the Societal Timing of the Arab Spring. *Foreign Policy Research Institute E-Notes*, January

Cincotta, R. (2014, Contribution in this volume).

Cliquet, R. (1992). "The second demographic transition: Fact or fiction?," Council of Europe Population Studies 23. Strasbourg: Council of Europe.

Coale, A. (1973). 'The demographic transition reconsidered', In: International Union for the Scientific Study of Population (IUSSP) (Ed.). Proceedings of the International Population Conference 1973, Vol. 1, pp. 53–73. Liège: Editions Ordina.

Coleman, D. (2004). Why we don't have to believe without doubting in the 'Second Demographic Transition'—Some agnostic comments. *Vienna Yearbook of Population Research* 2, 211–24.

Courbage, Y. (2014, Contribution in this volume).

Courtwright, D. (1998). *Violent Land: Single Men and Social Disorder from the Frontier Land to the Inner City.* Cambridge: Harvard University Press

Daly, M. & Wilson, M. (1990). Killing the Competition. Female/Female and Male/Male Homicide. *Human Nature* 1(1), 81-107

De Jong, J., Jawad, R., Mortagy, I., & Shepard, B. (2005). The Sexual and Reproductive Health of Young People in the Arab Countries and Iran. *Reproductive Health Matters*, 13(25), 49-59

Dhonte, P., Bhattacharya, R. & Yousef, T. (2000). Demographic Transition in the Middle East: Implications for Growth, Employment, and Housing, *IMF Working Paper WP/00/41*

Eberstadt, N & Shah, A. (2011). Fertility Decline in the Muslim World: A Veritable Sea-Change, Still Curiously Unnoticed. The American Enterprise Institute Working Paper Series on Development Policy, NO. 7

El-Tawila, S & Khadr, Z. (2004). Patterns of Marriage and Family Formation among Youth in Egypt, 2004. Center for Information and Computer Systems, Faculty of Economics and Political Science, Cairo University

Elzinga, C. & Liefbroer, A. (2007). De-standardization of family-life trajectories of young adults: A cross-national comparison using sequence analysis. *European Journal of Population*, 23 (2007),

Engelen, T. (1998). The Fertility Decline in the Dutch Province of Limburg, 1880-1960. *The History of the Family* 2(4), 405-424.

Engelen, T & Puschmann, P. (2011a). How Unique is the Western European Marriage Pattern? A Comparison of marriage in historical Europe and the contemporary Arab World. *The History of the Family* 16:4, 387-400

Engelen, T. & Puschmann, P. (2011b). De Arabische wereld. Een demografische tijdbom?. *Demos* 27, 1-5

Fargues, P. (2005). Women in Arab Countries: Challenging the Patriarchal System?. *Reproductive Health Matters* 13(25), 43-48

Fernea, E. (2000). The Challenges for Middle Eastern Women in the 21st Century. *Middle East Journal* 54(2), 185-193

Goldstone, J. (1991). *Revolution and Rebellion the Early Modern World.* Berkeley: University of California Press

Heinsohn, G.(2006). *Söhne und Weltmacht: Terror im Aufstieg und Fall der Nationen.* Zürich: Orell Füssli

Kárpáti, J. (2011). The Pension Systems of Arab Countries in the Light of Socio-Economic Risks. *Public Finance Quarterly* 56(2), 179-192

Kent, M. & Haub, C. (2005). Global Demographic Divide. *Population Bulletin* 60(4)

Khlat, M. (1997). Endogamy in the Arab World. In: A. Teebi & T. Farag (Eds.). *Genetic Disorders among Arab Populations.* (Pp 63-80). New York: Oxford University Press

Kirdar, S. (2010). United Arab Emirates. In: S. Kelly & J. Breslin (Eds.). *Women's Rights in the Middle East and North Africa*. New York: Freedom House

Kirk, D. (1996). Demographic Transition Theory. *Population Studies: A Journal of Demography* 50(3), 361-387.

Knerr, B. (2004). Desertification and Human Migration. In: D. Werner (Edt.). *Biological Resources and Migration* (Pp. 318-337). Berlin: Springer.

Lee, R. & Mason, A. (2010). Fertility, Human Capital, and Economic Growth over the Demographic Transition. *European Journal of Population* 26(2), 159-182.

Lesthaeghe, R. (2010). The Unfolding Story of the Second Demographic Transition. *Population and Development Review* 36(2), 211-251.

Lesthaeghe, R. & Van de Kaa, R. (1986). Twee demografische transities? In: R. Lesthaeghe & D. van de Kaa (Eds.). *Bevolking: Groei en krimp, mens en maatschappij book supplement* (Pp. 9-24). Deventer: Van Loghum-Slaterus.

Lesthaeghe, R. & Wilson, C. (1986). Modes of Production, Secularization, and the Pace of Fertility Decline in Western Europe, 1870-1930. In: A. Coale & S. Watkins (Eds.). *The Decline of Ferility in Europe.* (Pp. 261-292) Princeton: Princeton University Press.

Liefbroer, A. & Fokkema, T. (2008). Recent trends in Demographic Attitudes and Behavior: Is the Second Demographic Transition Moving to Southern and Eastern Europe. In: J. Suryn, P. Deboosere & J. Vanbavel (Eds.). *Demographic Challenges for the 21st Century.* Brussels: VUBPress.

Livi-Bacci, M. (2012). *A Concise History of World Population*. Oxford: Wiley-Blackwell.

Marks, M. (2011a). *The Hazard Posed by and Determinants of Delayed Male Marriage in Egypt.* Master Thesis of Stanford University

Marks, M. (2011b). Determinants of Delayed Male Marriage in Egypt. *The Stanford Journal on Muslim Affairs* 2(1), 22-29

Matthijs, K. (2002). Mimetic Appetite for Marriage in Nineteenth-Century Flanders: Gender Disadvantage As an Incentive for Social Change. *Journal of Family History* 27, 101-127.

McFalls, J. (2007). Population: A Lively Introduction. *Population Bulletin* 62(1)

Möller, H. (1968-1969). Youth as a Force in the Modern World. *Comparative Studies in Society and History* 10:3, 237-260.

Naamane Guessous, S. (1990). *Achter de schermen van de schaamte. De vrouwelijke seksualiteit in Marokko.* Amsterdam: An Dekker.

Nedoroscik, J. (1997). *The City of the Dead: A History of Cairo's Cemetery Communities.* Westport: Bergin & Garvey

Neels, K. & De Wachter, D (2010). Postponement and Recuperation of Belgian Fertility: How Are They Related to Rising Educational Attainment. *Vienna Yearbook of Population Research* 8, 77-106.

Notestein, F. (1945). Population: the long view. In: T. Schultz (Ed.). *Food for the World.* Chicago: Chicago University Press.

Olmsted, J. (2005). Gender, Ageing and the Evolving Arab Patriarchal Contract. *Feminist Economics* 11(2), 53-78

Olmsted, J. (2011). Economic Conditions and Household Formation: A Case Study of the Arab World. *The History of the Family. Ant International Quarterly* 16(4)

Omran, A. (1992). *Family Planning in the Legacy of Islam.* London: Routledge

Osman, M. & Shahd, L. (2003). Age-Discrepant Marriage in Egypt. In: N. Hopkins (Ed.). *The New Arab Family*. Caïro/ New York: The American University in Cairo Press

Population Division (2003). *Fertility Contraception and Population Policies*. New York: United Nations

Puschmann, P. (2011). *Casablanca. A Demographic Miracle on Moroccan Soil?* Leuven/ The Hague: Acco Academic

Rashad, H. (2000). Demographic Transition in Arab Countries: A New Perspective. *Journal of Population Research* 17, 83-101

Rashad, H. & Khadr, Z. (2002). The Demography of the Arab Region: New Challenges and Opportunities. In: I. Sirageldin (Ed.) *Human Capital. Population Economics in the Middle East.* Caïro: the American University of Caïro Press

Rashad, H. & Osman, M. (2003). Marriage in Arab Countries: Changes and Implications. In: N. Hopkins (Ed.) *The New Arab Family.* Caïro/ New York: The American University in Cairo Press

Rashad, H., Osman, M. & Roudi-Fahimi, F. (2005). Marriage in the Arab World. *Population Reference Bureau* September 2005

Roudi-Fahimi, F.(2004). Islam and Family Planning. *Population Reference Bureau, Mena Policy Brief*

Roudi-Fahimi, F. & Medrios Kent, M (2007). Challenges and Opportunities - The Population of the Middle East and North Africa. *Population Bulletin* 62(2)

Roudi-Fahimi, F.(2010). Child Marriage in the Middle East and North Africa. *Population Reference Bureau*

Saadawi, N. (2007). *The Hidden Face of Eve. Women in the Arab World.* London/ New York: Zed Books Ltd.

Sampson, R., Laub, J. & Wimer, C. (2006). Does Marriage Reduce Crime? A Counterfactual Approach to Within-Individual Causal Effects. *Criminology* 44(3), 465-508

Schoonheim, M. (2005). Mixing Ovaries and Rosaries. Catholic Religion and Reproduction in the Netherlands, 1870-1970. Amsterdam: Aksant Academic Publishers.

Schoonheim, M. & Hülsken, M. (2011). Religion and Fertility at the Extremes: The Netherlands and Taiwan. *The History of the Family* 16(3), 267-277.

Singerman, D. (2007). *The Economic Imperative of Marriage: Emerging Practices and Identities among Youth in the Middle East.* Middle East Youth Initiative Working Paper 6

Singerman, D. & Ibrahim, B. (2001). The Cost of Marriage in Egypt: A Hidden Variable in the New Arab Demography. In: N. Hopkins (Ed.). *The New Arab Family.* Caïro/ New York: The American University in Cairo Press

Sobotka , T. (2008). The Diverse Faces of the Second Demographic Transition. *Demographic Research* 19, 171-224.

Szreter, S. (1996). *Fertility, class, and gender in Britain, 1860-1940.* New York: Cambridge University Press.

Tabutin, D. & Schoumaker, B. (2005). The Demography of the Arab World and the Middle East from the 1950s to the 2000s. A Survey of Change and a Statistical Assessment. *Population (English Edition)* 60, 505-615

Tabutin, D., Vilquin, J. & Biraben J. (2002*). L'histoire de la population de l'Afrique du Nord pendant le deuxième millénaire*, Document de travail, no. 15, Louvain-La-Neuve, Département des sciences de la population et du développement

Tadmouri, G., Nair, P., Obeid, T, Al Ali, M., Al Khaja, N. & Hamamy H. (2009). Consanguinity and Reproductive Health among Arabs. *Reproductive Health* 6(17)

Unicef (2011). Early Marriage - Child Spouses. *Innocent Digest* 7, 1-29.

Urdal, H. (2006). A Clash of Generations? Youth Bulges and Political Violence. *International Studies Quarterly* 50(3), 607-630.

Van Bavel, J. (2004). Diffusion effects in the European Fertility Transition: Historical Evidence from within a Belgium Town (1846-1910). *European Journal of Population* 20(1), 63-85.

Van Bavel, J. (2010). Sub-Replacement Fertility in the West before the Baby Boom: Past and Current Perspectives. *Population Studies: A Journal of Demography* 64(1), 1-18.

Van Bavel, J. & Reher, D. (2013). The Baby Boom and Its Causes: What We Know wand What We Need to Know. *Population and Development Review* 39(2), 257-288.

Van de Kaa, D. (1987). Europe's Second Demographic Transition. *Population Bulletin* 42(1), 1-59.

Van de Kaa, D. (2002). The Idea of a Second Demographic Transition in Industrialized Countries. *Paper* presented at the Sixth Welfare Policy Seminar of the National Institue of Population and Social Security, Tokyo Japan, 29 January 2002.

Van de Kaa, D. (2004). Is the Second Demographic Transition a Useful Research Concept? Questions and Answers. *Vienna Yearbook of Population Research* 2, 4-10.

Van de Putte, B., Van Poppel, F., Vanassche, S., Sanchez, M., Jidkova, S., Eeckhaut, M., Oris, M. & Matthijs, K. (2009). The Rise of Age Homogamy in 19th Century Western Europe. *Journal of Marriage and Family* 71(5), 1234-1253.

Winckler, O. (1998). Rapid Population Growth and the Fertility Policies of the Arab Countries of the Middle East. In: J.Albert, M. Bernharsson & R. Kenna (Eds.). *Transformation of Middle Eastern Natural Enviornments* (Pp. 444-466). New Haven: Yale University Press

Winckler, O. (2005). *Arab Political Demography. Population Growth and Natalist Policies.* Brighton: Sussex Academic Press

Youssef, N. (1973). Cultural Ideals, Feminine Behaviour and Family Control. *Comparative Studies in Society and History* 15(3), 326-347.

Zuhur, S. (2003). Women and Empowerment in the Arab World. *Arab Studies Quarterly* 25(4), 17-38.

Zwaan, T. (1993). 'De verbroken vier-eenheid: Een interpretatie van recente transities', In: T. Zwaan (Ed.). *Familie, huwelijk en gezin in West-Europa*. Amsterdam & Heerlen: Boom & Open Universiteit.